

UNIVERSITY OF ALBERTA

**UNDERSTANDING LEISURE DECISION MAKING:
AN INTEGRATED ANALYSIS OF RECREATION PARTICIPATION,
ANTICIPATED LEISURE BENEFITS, ENVIRONMENTAL ATTITUDES,
LEISURE CONSTRAINTS, AND CONSTRAINTS NEGOTIATION**

by
Anna A. Nadirova



A Thesis

Submitted to the Faculty of Graduate Studies and Research
in partial fulfilment of the requirements
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DOCTOR OF PHILOSOPHY

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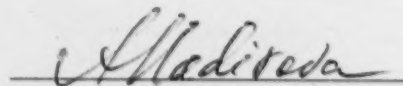
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Department of Earth & Atmospheric
Sciences
126 Earth Sciences Building
University of Alberta
Edmonton, Alberta, Canada T6G 2E3

Abstract

This study aims to provide an integrated analysis of the complicated decision making process underlying individual's leisure behaviour. It addresses the issues of fragmentation and theoretical and empirical "imbalance" in existing leisure research, which has developed in accordance with specific sub-disciplinary dimensions, such as benefits and constraints. The integrated approach to leisure experience and behaviour examination was attained by conducting a combined analysis of different aspects of leisure (i.e., activity participation, leisure motivations, environmental attitudes, leisure constraints, and constraints negotiation). The study progresses along two major lines. First, it contributes to further development of knowledge about specific aspects of leisure. Second, it "extends" this knowledge beyond the specialized disciplinary boundaries by focusing on links among these aspects. Thereby, it contributes to assembling specialized "blocks" of knowledge about leisure together and to understanding leisure behaviour as an integrated process.

The data were collected via a self-administered household questionnaire survey conducted in Edmonton, Alberta in 1996. The raw data were then organized in the following steps. First, factor analysis was run to reduce the extensive data to a limited number of manageable dimensions. This made possible the next, more general, classification stage, by means of cluster analysis. The latter enhanced a "people dimension" in the data by revealing distinctive perceptual and behavioural "profiles" of respondents (or sub-groups of the sample distinguished by particular activity preferences and combinations of perceived leisure benefits, constraints and environmental attitudes). As far as associations among different aspects of leisure are concerned, the data were analyzed at three levels of generalization: specific items, factor-based dimensions of items, and clusters of individuals.

Data examination resulted in a broad set of conclusions, which generally corroborated the results of previous research, confirmed existing hypotheses, and offered new empirical findings, theoretical insights, and propositions. The results were summarized in a series of process models.

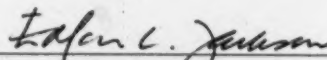
The innovative features of the study include systematic empirical exploration of the concept of leisure benefits individually and in conjunction with other dimensions of leisure motivation. Moreover, in accordance with the integrated character of the study, the analyses were extended to other aspects of leisure. For example, for the first time the link between environmental attitudes and leisure motivations was empirically explored and theoretically interpreted. Thus, the study went beyond traditional "behavioural" studies of environmental attitudes (i.e., their link with recreation participation) and ventured into a previously unexplored area of their connections with *leisure experience*. Also, the association between leisure constraints experienced and various aspects of leisure motivations was systematically investigated and theoretically substantiated.

Lastly, for the first time leisure constraints negotiation received a systematic consideration as a complex, integrated *process*. Negotiation behaviour was comprehensively measured and negotiation strategies classified into factor-based dimensions. Then the association among the negotiation variables was explored as well as their connections to other aspects of leisure, including perceived leisure constraints and leisure motivation. Suggestions for future research and an assessment of practical implications are offered in the concluding section of the thesis.

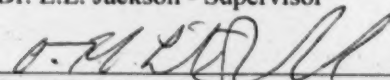
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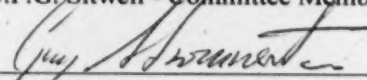
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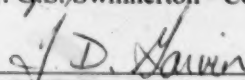
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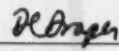
Dr. O.F.G. Sitwell - Committee Member



Dr. G.S. Swinnerton - Committee Member



Dr. T.D. Garvin - Committee Member



Dr. D.L. Draper - External Examiner

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Date

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CHAPTER 1

INTRODUCTION

Understanding Leisure: The Need for Integrated Research

The significance of studying leisure and general objectives of this study

Under contemporary economic, technological, and social conditions the portion of people's life dedicated to paid work and household duties tends to decline (Godbey, 1999, p. xiii). As Rojek puts it:

It is too simplistic to propose that the nineteenth and twentieth centuries will be remembered as the centuries of work, and that the twenty first will be classified as the century of leisure. Little in cultural or economic life is that black or white. But the numbers of people who spend large parts of their time in conspicuous leisure activity have grown in the twentieth century (Rojek, 1997, p. 396).

As Godbey (1999, p. xiii) has suggested, "More people have choice about what to do in the parts and aspects of their lives which aren't ruled by obligation." Therefore, satisfactions from areas of life other than work, particularly leisure, "will become increasingly important in the human quest for self-worth and identity" (Burton & Jackson, 1999, p. xix). The fact that recreation and leisure are becoming an essential aspect of some people's lives makes the roles of organizations which provide "a myriad" of recreation, park, leisure, and other services more central (Godbey, 1999), and at the same time puts pressure on leisure practitioners to provide adequate planning and service delivery. However, the "practical actions" will be unlikely to succeed without a link to solid knowledge. Burton and Jackson (1999), for example, note that "the policy will fail -- or at best will be irrelevant -- without studies that rest upon sound theoretical and empirical bases" (p. xx). This makes the role of leisure studies very important in understanding leisure, and explaining leisure behaviour, the nature of leisure experience and its meaning for the individual. Another vital function of leisure scholarship is contributing to the social sciences in general by developing knowledge about and enhancing appreciation of leisure as one of the important domains of human life.

The general objective of the study presented here is to make an empirical and theoretical contribution to this understanding. The study strives to understand how people perceive and experience their leisure, and how leisure experiences are related to patterns of leisure behaviour and formation of different "leisure styles." This study stands out against other leisure and recreation research by adopting a broad, encompassing perspective of leisure experience and

behaviour, and attempting a *large scale* empirical and theoretical synthesis of different aspects of leisure into an integrated picture (see the ensuing sections).

The experience/behavioural approach to leisure adopted in this study

Prior to the 1970s, North American scholars tended to view leisure as either time after work or engagement in particular types of activities (Kelly, 1999; Lee, Dattilo, & Howard, 1994). More recent conceptualization of leisure as a state of mind or *experience* signified a radical paradigm shift in its studying (from viewing it via an objective paradigm to a subjective one). Leisure started to be looked at not just as free time activities, but as a set of choices, or decisions based on people's perceptions and experiences, and research started to focus on questions such as *why* people participate (Jackson, 1989). Iso-Ahola (1988, 1995) welcomed the increased "psychologization" of leisure research as an exciting and very positive development and a promising avenue for *explaining* leisure behaviour.

Mannell (1999) outlines key principles of the experience approach, namely, that leisure should not be viewed merely as what people *do* in their leisure, but rather how they "construe, experience, and apprise what they do" (p. 235). According to Kelly (1999), leisure is experience-centred action that produces meaning: "Leisure is deciding and doing as well as feeling" (p. 137). Thus, in order to understand leisure it is important to find out how people themselves experience and perceive their leisure and what meanings they attach to it. The major "policy-related" implication of a broad range of works analyzing leisure experience is that practitioners must facilitate experience, rather than merely provide recreation opportunities. For example, Mannell (1999) indicates that the assessment of how leisure contributes to the quality of life will be more successful by observation and measurement of the actual amount (and quality) of leisure experienced rather than the extent of engagement in externally defined leisure activities.

Appreciation of leisure as experience is a core of the *behavioural approach* to viewing leisure. Leisure behaviour (participation patterns) is considered to be a function of experience (e.g., leisure motivations) (Driver & Tocher, 1970), and hence, can be explained by the latter. This allows us to theorize that the process of leisure decision making and choices can be underlaid (along with other "internal" and "external" factors) by an intricate combination of perceptions and experiences. Jackson (1989) argued that the "behavioural approach to recreation" can effectively combine the experience and activity perspectives in spite of the substantial differences in their conceptual frameworks and emphasis on different types of questions. He summarized the essence of the

behavioural perspective in the following way: "The main contribution of the behavioural approach is to synthesize the activity and experience approaches into a holistic model and conceptual framework. The focus is simultaneously on the entire complex behavioural system made up of the antecedents of recreational behaviours, their outcomes, and the behaviours themselves" (p. 81). Congruent with this line of reasoning, this study adopts an inclusive and broad concept of leisure behaviour as a complex phenomenon, which is not confined in its meaning to "ultimate behavioural outcomes" or "overt" behaviour, such as activity participation, but also implies experiences, perceptions, and attitudes as its integral and interrelated constituents.

The need for integrated leisure studies

The operationalization of leisure based on the experience approach has expanded opportunities for leisure research, but has also substantially complicated the latter, making it very multifaceted and challenging. "We see other people's behavior, but not their experience ..." (Laing, 1967; quoted in Driver & Tocher, 1970, p. 11) thus, the nature of leisure experience for the individual is not easy to define, assess and explain. Moreover, the range of leisure-related perceptions and experiences can be very broad, including a complex interaction of a variety of factors, such as the realization of past and potential gains from leisure (leisure benefits) and confronting various leisure impediments (constraints). Researchers have noted the *multidimensional nature* of leisure experience (e.g., Tinsley & Tinsley, 1986) in which leisure is characterized by a variety of experiences, positive as well as negative ones. Also, they have observed its dynamic nature, or fluctuation across time and context (Lee et al., 1994).

The literature indicates that some individual aspects (dimensions) of leisure and relationships among them have received substantial conceptual and empirical elaboration. For instance, empirical studies have confirmed the connection of some leisure experiences (e.g., constraints to leisure, leisure motivations and perceived leisure benefits) with the behavioural outcomes (leisure participation) (Jackson & Rucks, 1995; Ragheb & Tate, 1993; Tinsley & Johnson, 1984; Tinsley, Teaff, Colbs, & Kaufman, 1985). Moreover, it has been demonstrated that patterns of behaviour depend in part on people's personal characteristics, such as attitudes (e.g., environmental attitudes [Jackson, 1986] and attitudes toward leisure [Ragheb & Tate, 1993]). These results confirm that the key assumption that leisure behaviour is a function of experience (as well as values, beliefs, and attitudes) could be theoretically tenable.

However, the complexity of the concept of leisure experience indicates a clear need to focus

attention on more broadly defined, synthesizing studies which would connect various strands of leisure experience and behaviour by exploring their interrelationships. Such studies should contribute to building a more integrated picture and attaining of better understanding of leisure as a *process*, compared to research focusing on its individual aspects. The available literature indicates an understanding in the leisure research community that "traditional" specialized investigations of individual leisure domains need to be supplemented with integrated studies, which would put these domains together. For example, Jackson and Rucks (1995) explored the relationships between leisure constraints, activities and constraints negotiation. Ragheb and Tate (1993) postulated and empirically tested a "behavioural model about leisure," which accounted for attitudes toward leisure activities, motivation for participation, participation, and leisure satisfaction. Nevertheless, "specialized" types of research still prevail, whereas large-scale, integrated studies are lacking.

Furthermore, there is a high degree of imbalance in the research coverage among different areas of leisure studies. While leisure constraints first underwent intensive empirical examination, with later addition of conceptual explanations and theoretical constructs (Crawford & Godbey, 1987; Crawford, Jackson, & Godbey, 1991; Jackson, Crawford, & Godbey, 1993), direct research on leisure benefits (which emerged as a new independent field from the studies of leisure motivations and satisfaction) has been largely theoretical and conceptual in nature and lacks systematic empirical coverage. Also, some important links between different aspects of leisure remain either unexplored or underexplored. For example, there have been no empirical inquiries into the relationship between leisure motivations and leisure benefits and constraints to leisure, with the exception of a recent work of Carroll and Alexandris (1997), which is confined to sport participation. However, the possibility of such a link and its importance in explaining leisure behaviour has been emphasized in the leisure literature (e.g., Jackson, Crawford, & Godbey, 1993; McPherson, 1991). The process of leisure constraints negotiation and its association with the experienced constraints, activity participation, and perceived leisure benefits, as well as with social and economic attributes of individuals, also remains largely underexplored. While sufficient light has been cast on the relationship between environmental attitudes and recreation participation (Dunlap & Heffernan, 1975; Jackson, 1986; Pinhey & Grimes, 1979; Van Liere & Noe, 1981), their association with leisure perceptions and experiences has not been investigated.

To summarize, empirical research in leisure and recreation remains highly fragmented, and substantial empirical and theoretical developments in certain areas are still not sufficient to grasp

the complicated processes underlying leisure behaviour. Lack of adequate understanding and explanation of the choices and factors that shape leisure behaviour can not only have negative implications in terms of research conclusions, but can also lead to erroneous practical actions and a failure to develop management policies that can correctly address the demands of the public. The present research attempts to contribute in filling this gap in knowledge by undertaking a *simultaneous* examination of a variety of leisure-related issues in a survey of Edmonton residents. The purpose and character of this study are twofold. First, it offers insights into the specific links, (with the emphasis on empirical testing of the relationships) between different leisure-related variables that have not been explored before. Second, it aims at generalizing and connecting knowledge by "putting together" specialized fields of leisure and recreation research and providing theoretical implications and explanations of the findings.

General philosophical and theoretical position of the present study

Given that leisure is an "elusive concept" (Stockdale, 1989), which can be viewed from different perspectives, and that "competing theories are engaged in a struggle to command the terrain" (Rojek, 1989, p. 69), it is necessary to cast some light on the general theoretical and philosophical stance of this study.

Rojek (1997) identified three major (and often rival) theoretical perspectives in leisure theory "in the postwar period." "Functionalism/post-industrial society" (or "agency" approach; Rojek, 1989) attributes freedom, choice and self determination to social actors. This approach is attacked by the adherents of the "structuralist critique" camp, including the main charge that it underestimates the social and cultural contexts of leisure practices and overlooks "structural" factors (such as class, gender, and ethnicity). The main forms of structuralism in leisure theory are Marxism and feminism (Coalter, 1999; Rojek, 1997; Veal, 1998); "both begin with the situated character of the actor and leisure practice" (Rojek 1997, p. 385). Marxism considers capitalism to be the essential context of human behaviour and presents society as structured around class inequality. Leisure, as a part of human behaviour, is regarded to involve social control and therefore, only superficially involves individual choice. Feminism insists that the structure through which class and commodification are expressed is patriarchy. The latter "involves the systematic use of male power to subordinate or exclude women from many aspects of economy, civil society and leisure practice" (Rojek, 1997, p. 386). However, structuralist outlooks are also being criticized as unsatisfactory in a number of respects. Focusing on the "situated" character of

leisure practices tends to underplay the possibilities of self-consciousness and perspective of social actors. Moreover, Rojek (1997) notes that structuralist approaches are inclined to present a "skewed analysis" of leisure, overstating the significance of the favoured structural influence at the expense of others. For instance, class analysis tends to attribute too much influence to class in shaping leisure, and not enough to gender and race; feminism does the same for patriarchy, and so on.

The third, "poststructuralist/postmodernist," approach emphasizes increased plurality of contemporary life, marked by fragmentation, differentiation, diversity and mobility. Arguments about a "postmodern condition" suggest rapid economic and social change towards fracturing of traditional collectivist cultures and social, cultural, economic, and political dislocation. Old collective identities and common interests (class, gender, race, community, and even nation) have become fragmented and diffuse (Coalter, 1999). Supporters of postmodernist views criticise the structuralist concepts of modernism for distorting reality by imposing categories upon human actions and processes which are not confirmed by human practice (Rojek, 1997).

The present study does not intend to "take sides" and "fit neatly" and unconditionally into one of the theoretical perspectives. In fact, it opposes the stance referred to by Rojek (1997) as the "gladiatorial paradigm": "In such a paradigm the value of each theory is shown by its ability to triumph over rival theories in the field and thereby claim theoretical ascendancy" (p. 388). Rather, this study adheres to the pluralist position in exploring the extremely complicated phenomenon of leisure. According to Veal (1998) and McLennan (1995; quoted in Veal, 1998), pluralism accepts multiple perspectives and is characterized (along with other "multiple meanings") by a "fruitful methodological diversity," "endorsement of different ways of knowing and being," "creativity and openness in theory," "the sense that social and political identities are now chosen rather than inherited," and "enshrinement of the principle of 'equal but different'" (McLennan, 1995, p. 3). Therefore, the choice of theoretical and methodological approach should be determined by the objectives of the research and nature of posed questions.

It was realized upon initiating this research that it was impossible to embrace in a single study the complete range of issues relevant to leisure. Different theoretical perspectives highlight different sides of the leisure domain, and the choice of one approach over another was necessary to limit the study to a certain perspective. As Hemingway (1995) and Samdahl (1999) have noted, asking research questions enhances some understandings, while simultaneously turns us away from others. While concurring with Kelly's (1999) position that leisure is best understood as a

dialectic unity of the "existential" and "social," this study highlights the first dimension of leisure and therefore, according to Rojek's (1989, 1997) classifications, "formally" comes close to the "agency" or "functionalist" approach. Taking this position was conditioned by the following factors: (1) The study is integrative in nature and attempts to introduce the "process outlook" on leisure behaviour by putting together and relating to each other specialized leisure concepts. This integrative approach presumes building (at least to some extent) on the results of previous research on leisure, much of which (at least in North America) have been based upon the "agency" perspective. (2) While admitting contextual influences on leisure behaviour, the study maintains that an individual with his/her distinctive personality, will power, and creativity should not be overlooked behind the "structures" and "situations." People are very different in their values and the way they perceive the world, their tastes, goals, and aspirations. Therefore, the current study targets understanding leisure mainly from the subjective (individual) perspective of leisure participants and adopts a broadly accepted *experience* approach to examining leisure.

At the same time, the analysis of leisure behaviour in this study is not completely deprived of "socialization" elements and involves variables such as gender, age, income, and education. Leisure constraints, which receive a detailed consideration in the study, represent a "negative" side of leisure experience (addressing concerns that often only positive dimensions of leisure have been highlighted) and also add to it some "contextual flavour" reflecting (apart from intrapersonal leisure hindrances) external ("structural") impediments to leisure. Also the study agrees with the postmodernist critique that experiencing degrees of freedom, choice and self determination is not unique to leisure. While still characteristic to leisure pursuits (see Chapter 2), these positive effects can be attributed to other aspects of life, including satisfactory, rewarding work.

Contributions of the Study

There are five main contributions of this study to our knowledge about leisure and to the body of leisure research. These are: (1) contribution to eliminating fragmentation in leisure and recreation studies; (2) contribution to the development of individual sub-fields of leisure studies; (3) using alternative and "conventional" analytical strategies; (4) combination of confirmatory and exploratory approaches to research; and (5) development of a measurement tool for the integrated study of leisure behaviour.

Contribution to eliminating fragmentation in leisure and recreation studies

Concern about the absence of "a common purpose" and "lack of theoretical and conceptual integration and the degree of disciplinary fragmentation in leisure studies" (Jackson & Burton, 1989, p. 3) has been repeatedly expressed in the leisure research literature, along with the criticisms that the models applied to link variables together have limitations and have missed many of the dynamic factors that shape and influence people's leisure choices (Samdahl & Jekubovich, 1997). While the leisure literature does contain periodical comprehensive reviews, which assess both the field of leisure studies in general and its major areas (Driver, Brown, & Peterson, 1991; Jackson, 1988, 1991; Jackson & Burton, 1989, 1999), there is a lack of large-scale, integrated studies which would go beyond the boundaries of specialized areas (leisure constraints, benefits, etc.). The current study addresses this problem by exploring interrelationships among a broad variety of leisure domains, and attempts to contribute to the development of an integrated perspective on the leisure decision-making process and formation of diversified leisure styles. The research encompasses the examination of leisure participation, motivations (including anticipated benefits of leisure), and leisure constraints and their negotiation. The "attitudinal component" of the research is represented by the analysis of environmental attitudes in connection with leisure-related variables, including leisure experiences. Each of these sets of variables is also tested for the links with social, economic, and demographic characteristics.¹

Besides contributing to the empirical integration of different areas of leisure studies, research such as this represents a step toward theoretical consolidation of the field and "softening" of the sub-disciplinary boundaries. Furthermore, the results of this study can eventually contribute to practical issues in the field of leisure and recreation by enhancing understanding of different components of leisure behaviour in their interaction with each other, and by uncovering leisure experiences and choices inherent to different groups of leisure participants.

Contribution to the development of individual sub-fields of leisure studies

Besides linking together specialized areas of leisure and recreation research, the study targets the issues *within* each of the considered sub-fields of leisure that have not been explored before, or did not get sufficient consideration in previous research. For instance, the present study

¹ The term "socio-demographic" variables is used in the next portions of the thesis to describe age, gender, income, and in some cases education-related variations in leisure-related variables and environmental attitudes.

contributes in filling the "void" in the current knowledge on leisure benefits by obtaining comprehensive measurement of the latter, deriving and analyzing general patterns in the data by means of factor and cluster analyses, exploring social and demographic variations in the benefits data, and exploring links with other aspects of leisure, including ones that have not been studied before (e.g., relationships with leisure constraints and environmental attitudes). Also, the present study sheds more light on the understanding of the process of leisure constraints negotiation through its thorough and multilateral examination. The latter involved empirical classification and analysis of negotiation strategies and the examination of connections among negotiation variables, leisure constraints, and other domains of leisure, including leisure benefits and motivations. Also, the links between constraints negotiation patterns and social and demographic attributes were explored.

Combination of alternative and "conventional" analytical strategies

The innovative feature of this study is the application of an alternative method of data classification and examination, cluster analysis. The reason for applying this classification strategy, which has not been widely utilized in leisure and recreation research, is to add a multifaceted perspective to the analysis, contributing, thereby, to the ultimate goal of the research: providing a comprehensive examination of leisure behaviour. Cluster analysis reflects overall similarities of objects (Romesburg, 1979), such as people, which are grouped based on their similar standings on multiple attributes (Ditton, Goodale, & Johnsen, 1975), whereas factor analysis provides only single-attribute (unidimensional) classifications of a phenomenon.

The advantages of cluster analysis as an analytical alternative and supplement to a more conventionally used method of data reduction and classification, factor analysis, have been revealed in a number of studies. Factor analysis included evaluating people on attributes such as activity participation (Burton, 1971; Ditton et al., 1975; Romsa, 1973), leisure satisfaction (Hautaloma & Brown, 1978) and constraints (Jackson, 1993). For instance, Jackson's (1993) study of leisure constraints demonstrated that assembling *people* into clusters instead of individual constraint *items* into the internally consistent factor-based dimensions, resulted in new important evidence about variations in the experience of constraints. Some groups (clusters) of people were affected, not by a certain type of constraint, but rather by the *combinations* of different leisure inhibitors. This finding contributed to the adoption of a more sophisticated outlook on leisure behaviour in general and the operation of constraints in particular, compared to a relatively limited

perspective ensuing from factor analysis, which classifies leisure impediments into dimensions, each of which embodied a single type of constraint. Similarly, Ditton et al. (1975) found out as a result of clustering activity/environment variables that fishermen, for example, counter to their "dedicated" image, did participate in other water-related activities.

These results amply illustrate a more general argument of Beaman and Vaske (1995, pp. 168, 169), that cluster classifications might provide a more close reflection of reality than other analysis techniques (e.g., factor analysis) by recognizing "inhomogeneous populations" or "social aggregates" with their "different wants and needs." Accentuating the practical value of this approach (along with its research implications), Beaman and Vaske conclude that only when such groups and their associated attributes are validly recognized and analyzed properly can management policies correctly address the demands of competing groups. At the same time, it is essential to keep in mind the limitations of cluster analysis, including an element of subjectivity in selecting clustering methods and determining the most appropriate cluster sets.

The present study applies cluster analysis in the classification of anticipated benefits, leisure constraints, environmental attitudes, and leisure participation. Thereby, a variety of patterns or "profiles" of leisure behaviour is identified and compared within a single study. Using cluster analysis on each variable set allows data analysis at a high level of generality. Theoretically, therefore, cluster analysis should permit the recognition of patterns within a given set of variables (e.g., constraints) that would likely be obscured if the original, raw, unclassified data were used. Consequently, patterns of relationships *between* variable sets also should emerge.

Combination of confirmatory and exploratory approaches to research

This thesis embraces a variety of research approaches. First, the study builds on prior knowledge by confirming previously established findings and, thereby, attesting to the validity of the data. The study also provides empirical testing of both previously advanced but untested hypotheses and propositions and of the new postulates developed based on the available leisure literature. Second, a substantial effort is directed at exploring new patterns and links which have not been looked at before, and thereby generating new insights or previously unsuspected findings. For example, the relationship between environmental attitudes and anticipated leisure benefits is first featured in the present research, as well as many aspects of leisure constraints negotiation. Posing new exploratory questions and generating new insights into the leisure phenomenon contributes to the *utility* of the reported research (Tinsley & Johnson, 1984).

Development of a measurement tool for the integrated study of leisure behaviour

A comprehensive questionnaire was developed for the integrated leisure study. The purpose of this measurement tool was to provide sufficient coverage of all considered aspects of leisure within a limited questionnaire format. Measurement scales were compiled using diverse information sources, such as Jackson's (1986) study of outdoor recreation participation and attitudes to the environment, public surveys by Alberta Tourism, Parks and Recreation, Recreation Experience Preference Scales featured by Driver and associates and Paragraphs About Leisure developed by Tinsley and his colleagues (e.g., Driver, Tinsley & Manfredi, 1991), questionnaires on leisure constraints and their negotiation created by graduate students of the Department of Geography, University of Alberta (Don Hurlbut and Victoria Rucks), with modifications made in accordance with the purpose of the study, and also a variety of other literature sources, including quantitative as well as qualitative studies. As a result relatively detailed and comprehensive scales for leisure activities, anticipated benefits, environmental attitudes, leisure constraints, and negotiation strategies ranging from 21 to 77 items were incorporated in the questionnaire.

Organization of the Thesis

The thesis proceeds with a review of the theoretical background and specialized areas of leisure studies in Chapter 2, including: (1) definitions of leisure, leisure participation and styles, (2) leisure motivations and perceived benefits of leisure, (3) environmental attitudes and recreation participation, and (4) leisure constraints and negotiation through them. Chapter 3 (Methods) outlines how the data were collected and describes the analytical strategy of the study. Following is the "analytical core" of the thesis (Chapters 4 through 8) containing statistical analyses and data interpretation. The analyses commence with classification of the data by means of factor and cluster analyses and identifying general patterns within each of the sets of variables. Chapter 4 focuses on data aggregation and classification and provides individual sub-sections on leisure activities, anticipated benefits, environmental attitudes, and constraints. The only exception is factor analysis of negotiation strategies, which is discussed separately at the outset of the chapter on constraints negotiation (Chapter 8), because, unlike other leisure-related variables, negotiation strategies are examined only in that particular portion of the thesis.

The inclusive, synthesizing nature of the thesis presumes dealing with a large number of variables. Thus, bivariate analyses dealing with the links between different aspects of leisure were

organized as a sequence of separate, but logically connected inquiries (Chapters 5 through 8), resulting in unfolding of a progressively complex picture of leisure behaviour. To illustrate this point, if one were to picture leisure behaviour as a very complex system with myriad of links and interconnections, the chapters would focus on its elements, or on a number of its subsystems (Mendoza & Napoli, 1973). The analyses focus on the interaction among the elements within each of these subsystems (see the diagrams at the end of the Chapters 6-8). At the same time, these subsystems of leisure behaviour are open and interrelated (see the concluding diagram in Chapter 9).

Chapter 5 concentrates on the relationships between anticipated benefits and other motivational factors (a general value placed on leisure) and leisure participation. Chapter 6 explores relationships between environmental attitudes, activity participation and anticipated leisure benefits. Chapter 7 examines the process of encountering leisure constraints, their associations with leisure motivations and participation outcomes. Chapter 8 represents a logical continuation of Chapter 7 and provides a comprehensive examination of the relationships among combinations of the variables that may play a role in the constraints negotiation process. The chapter commences with consideration of general aspects of negotiation, such as negotiation drive and potential, and concludes with the analysis of specific *negotiation strategies* and their types. All analysis chapters contain the examination of links between leisure-related variables and socio-demographic characteristics in order to compare the results with foregoing studies and establish credibility of the data, as well as to derive new insights into leisure behaviour. The final chapter (Chapter 9) addresses integration among the data sets and discusses implications of the findings.

CHAPTER 2

BACKGROUND TO THE STUDY

Leisure Meanings and Definitions: Participation, Behaviour, and Styles

The concepts of leisure, leisure behaviour and leisure styles can be given very different interpretations. The purpose of this introductory section of the background to the thesis is to clarify how these concepts are understood and defined in this study.

Interpretations of leisure adopted in the current study

As noted in the Introduction, this study concentrates on leisure as a "phenomenon of the actor" (Kelly, 1999, p. 148) and tries to understand personal leisure experiences and choices through an integrated analysis of various aspects of leisure. There are, however, many other sides of the multidimensional phenomenon of leisure that need clarification.

Leisure and freedom: Leisure plays an important role in helping people to balance their lives (for instance, to balance understimulating and overstimulating work) and achieve a better quality of life. It usually occurs during "free time," but cannot be defined simply as such; as much of nonwork time is occupied by obligatory ("extrinsically motivated") activities, such as household work. Leisure, therefore, coincides with a "small island" in "free time" (Iso-Ahola, 1999). While expressed through a broad variety of nonobligatory free-time pursuits characterized as "leisure activities," leisure is rather not what people are doing, but what they are experiencing that makes them feel like "leisure."

Leisure is frequently associated with perceived *freedom and free choice* (in contrast with obligations and routines of work or obligatory non-work activity participation, such as home chores). For example, Manfredi, Driver, and Tarrant (1996) define "recreation" as a "psychophysiological experience" that is "self-rewarding," occurs during nonobligated time, and is the result of free choice (p. 189). Iso-Ahola (1999) contends that it seems indisputable that a sense of freedom and autonomy is the central defining characteristic of leisure as "there are no internal or external pressures or coercion to engage in leisure activities" (p. 39). The current study generally conforms to this point of view. However, it also emphasizes the *relativity* of leisure freedom, because, as further demonstrated in the chapters on leisure constraints and their negotiation, people often face impediments to their leisure and are compelled to find different strategies to go around them. "Negotiated leisure" can entail various strategies, including reduced

duration of participation, changes in scheduling activities, and substitution of one activity for another (Jackson, Crawford, & Godbey, 1993). This means that people are not always able to do *exactly* what they want for leisure in the first place, and eventual participation can differ from what was initially desired and intended. At the same time, activity substitution does not exclude freedom to choose an alternative pursuit, which can also be "intrinsically interesting" for the participant and be done "for its own sake, out of sheer pleasure and enjoyment" (Iso-Ahola, 1999, p. 39). This position is consistent with Cooper's (1999) understanding of leisure as permitting "instrumental [extrinsic] as well as intrinsic motivation" (p.13).

The scope of leisure: Frequently leisure is considered as the "process of becoming" (Kelly, 1999), of (positive and negative) learning and self-development. While work (paid employment as well as homemaking) is not always self-rewarding, and does not always allow an individual to fully realize his/her potential, leisure, which implies freedom and control, may provide a opportunity to fill this gap. This brings up definitions of leisure as "intrinsically-motivated" experience and behaviour, when people do what they find to be inherently interesting for them and enjoy major "intrinsic rewards," such as sense of autonomy, mastery and competence, and social fulfilment. Iso-Ahola (1999, pp. 39, 42, 43) contends that "intrinsic motivation is in the heart of human behaviour," and whenever possible, people prefer intrinsically motivated behaviours. The latter are self-determined and are inherently enjoyment- and satisfaction-producing. Based on this line of argument, a broad range of "free-time" activities, including television watching and physical exercise cannot be classified as "true leisure." Iso-Ahola characterizes the first one as "autonomy by default" and the second one as "autonomy by must." Watching TV helps at best to only partially fulfill "a need for autonomy," and this sense becomes illusory because it does not make people feel good about themselves psychologically. Exercise, in turn, becomes a "should" rather than a "want." While some people manage to turn it into a self-determined activity, for many it is rather "internally pressured" and hence, results in a very limited sense of autonomy.

However, the present study embraces a broader notion of leisure compared to the narrow one offered by Iso-Ahola, who practically reduces "true" leisure to "intrinsically motivated" experiences and behaviours. It can be argued that passive avocations such as watching TV and video, and also exercise, walking, reading, residential enhancement (lawn and garden activity), and meeting with family and friends represent the common and persistent "core of activities that occupy most adults most of their lives" (Kelly, 1999, p. 143). Therefore, they cannot be ignored and excluded from the examination of leisure. While many of these pursuits probably do not

contribute much to the sense of competence, achievement, or challenge, they may endow enjoyment, escaping from everyday routines, psychological well-being from human interaction, and relaxation. According to Mannell (1999), who quotes a number of studies attempting to identify how people *themselves* define their leisure, this type of feeling was commonly associated with experiences, which are likely to be construed as leisure. Consequently, the study reported here, given its integrative nature, goes beyond the "intrinsic" definition of leisure and measures participation in a broad range of pursuits including common "free-time activities."

Leisure and other domains of life: While admitting that experiencing degrees of freedom, choice and self-determination are characteristic to leisure, and may be attainable for many people only through leisure, this study agrees with the postmodernist critique that these experiences are not unique to leisure. They can be attributed as well to other aspects of life, including satisfactory, rewarding work. Moreover, as Rojek (1997) notes, economic and cultural transformations of the "post-Fordist" society have led to the erosion of the division between work and leisure "for large numbers of the adult population." To begin with, there have been considerable changes in the work sphere, including increased casualised labor, interrupted career patterns and early retirement. Second, due to new technology, increasing numbers of the workforce work at home. Therefore, domestic space, which has been a prime arena for leisure, now assumes many of the characteristics of workspace. However, Rojek argues, "the new tools of trade, notably modems and computers, also provide the function of entertainment, education and amusement. They are mechanisms of leisure as well as work" (Rojek, 1997, p. 391).

In summary, this study views leisure as a complex, *multidimensional phenomenon*, which has multiple meanings and does not fit easily into a single definition. Leisure plays an important role in helping people to balance their lives (for instance, to balance understimulating and overstimulating work) and achieve better quality of life. For many people leisure is a way to self-development and fulfilment. However, satisfaction of a most basic human need, the need for autonomy (Iso-Ahola, 1999), boosting a sense of confidence and achievement, and other positive outcomes, are not unique properties of leisure, and can be associated with other aspects of people's lives. Leisure is frequently associated with freedom (to choose or decide what to do), but the concept of freedom is relative, taking into account constraints and inhibitors to leisure confronted by the majority of people (see Chapters 7 and 8). Leisure also is conceived in this study somewhat more broadly than "intrinsically motivated" behaviours and experiences, and includes such passive and active "free-time" engagements as watching TV, exercise, walking, etc.

Leisure participation and leisure behaviour

References to leisure participation and analyses of its connections to other leisure-related variables are present in all the analysis portions of the thesis. Leisure participation can be defined as the overt manifestation of leisure, or observable leisure behaviour. Leisure participation can be influenced by a host of experiences and perceptions, including different meanings attached to the activity, expectations of likely enjoyment, perception of constraints, and so on. At the same time, new experiences are generated in the process of leisure involvement. As outlined in the Introduction, this study clearly differentiates between the concepts of leisure participation and leisure behaviour. Based on the behavioural approach to leisure studies (Jackson, 1989) the latter is conceived as an embrative and complex concept, which includes, but is not confined to, activity participation and presumes a complex interaction of experiences, perceptions, and attitudes.

Leisure styles

The integrated character of the present study, which attempts to connect different aspects of leisure, brings up the notion of "leisure style." *Lifestyle* can be defined as individual's whole way of living, and *leisure style* is one of its numerous aspects.

The present study adopts a concept of leisure style which is different from one proposed by Kelly (1989, 1999). According to Kelly, styles of leisure are how people act and interact rather than which activities they undertake. *Styles* vary more than activities themselves, are learned and are related to cultural differences and social status. As Kelly puts it: "Status is a matter of style. And it seems to be styles of leisure that vary the most. People eat out — some at fast food chains and a few at exclusive clubs. They travel — most by car, staying with friends and at budget motels, and a few by Concorde to pricey resorts" (Kelly, 1999, pp. 140-141).

The present study accentuates different sides of leisure style. Conceptualization of leisure style reflects the study's goals and therefore has more of a "behavioural" and "experiential" than "social" flavour. Generally, leisure styles can be defined as the different ways in which people perceive their leisure and make decisions about their leisure. Leisure styles tap different aspects of leisure experience, e.g., what benefits people desire, degree and nature of their leisure motivations, perception of constraints, desire and ability to negotiate through them, and so on. The complex interaction of these experiences may mould into distinctive patterns of leisure participation ("participation styles"), which are observable reflections of different leisure styles.

Basically, the analysis of leisure styles starts in this study from clustering people into groups (cluster analysis) according to commonly experienced benefits, constraints, and participation styles. As analyses of the interactions between different aspects of leisure commences, a more complex picture of leisure behaviour and leisure styles emerges. All together they reveal different attitudes toward leisure and different decision making mechanisms related to leisure.

Benefits and Motivational Aspects of Leisure

It is reasonable to expect that people voluntarily engage in various recreation activities during nonobligated time because of intrinsically rewarding outcomes associated with such engagements away from work and monotonous and stressful day-to-day routines. These positive outcomes can be generally termed benefits of leisure. Studying leisure benefits is a key area in leisure research, because it helps to determine *why* people get involved in leisure in general and in particular recreation activities and assists in understanding the consequences of leisure engagements.

As shown in the next sub-section, research on leisure benefits has resulted in the creation of comprehensive conceptual frameworks, development of extensive inventories of potential benefits, and empirical assessments of their relative importance (Driver & Bruns, 1999; Driver, Tinsley, & Manfreda, 1991; and Schreyer & Driver, 1989). However, the available empirical knowledge in the field shows a lack of theoretical and conceptual coherence. A large, diverse group of findings has been generated by many different levels of analysis and reflects a wide range of philosophical positions (Philipp, 1997). The simultaneous arrival of two important publications aimed at documenting and a critical overview of benefit-related studies reflected concern in the leisure research community about the necessity of conceptual and theoretical clarification and more systematic inquiries focusing *directly* on leisure benefits. The publications included a book edited by Driver, Brown & Peterson (1991) and a special issue of the *Journal of Leisure Research*, 1990, 22 (2).

Although the term "benefits" was featured in the leisure literature more than two decades ago (Driver, 1976), subsequent empirical research focused on benefits rather indirectly: they were implicitly inferred from studies on leisure motivations and satisfaction (Iso-Ahola, 1989, 1999; Manfreda, Driver, & Tarrant, 1996; Mannell, 1989, 1999). "Benefit-implying" studies reflected considerable conceptual diversity, focusing on differently formulated, but often close in meaning concepts of "psychological goal states," "experience preferences," "psychological outcomes" of leisure, "leisure experience outcomes," and "need satisfaction" (Manfreda, et al., 1996; Mannell,

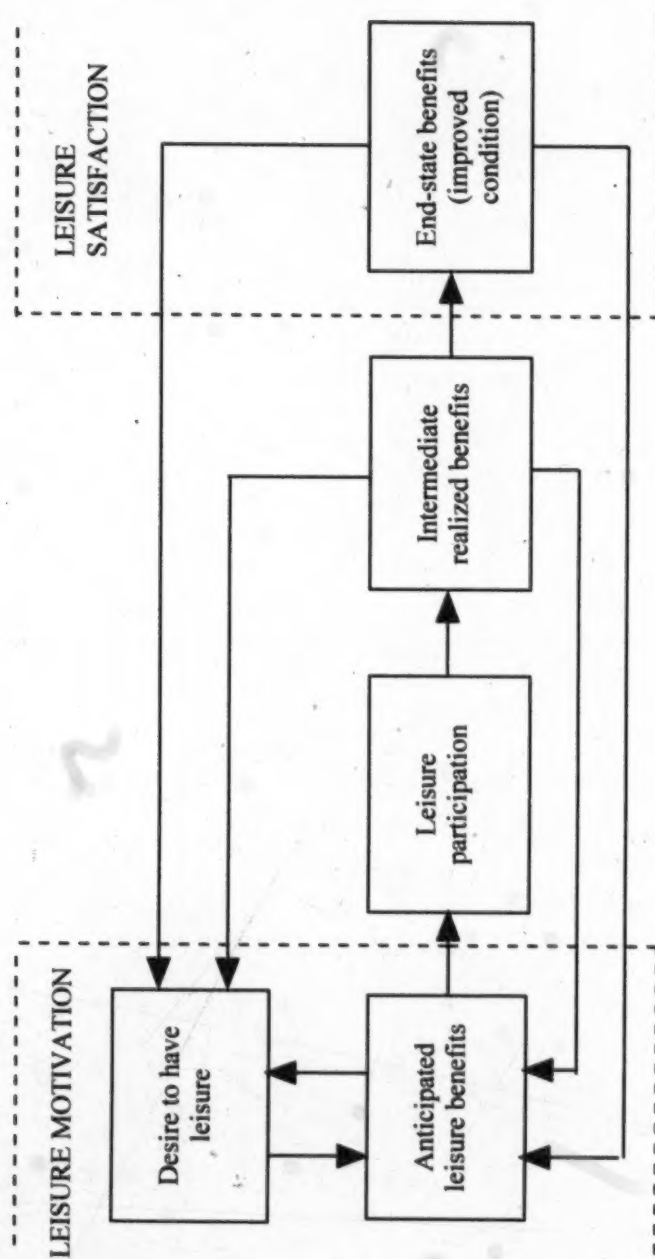
1999; Schreyer & Driver, 1989; Tinsley, Barret, & Kass, 1977).

Apart from the work of Tinsley and associates, involving diversified leisure benefits and associated activities (Tinsley, Colbs, Teaff, & Kaufman, 1987; Tinsley & Johnson, 1984; Tinsley & Kass, 1978, 1979; Tinsley, Teaff, Colbs, & Kaufman, 1985; Tinsley & Tinsley, 1988), the studies usually focused either on specific beneficial outcomes of leisure, such as learning or skill acquisition (Easley, 1991; Roggenbuck, Loomis, & Dagostino, 1991), and family interaction and cohesion (Orthner & Mancini, 1990), or were related to certain types of leisure, including outdoor recreation (e.g., Driver, 1986; Driver & Cooksey, 1980; Manfredi, Driver & Brown, 1983; Manfredi, Sneegas, Driver, & Bright, 1989; Tarrant, Manfredi, & Driver, 1994). Also, relatively little research has been directed toward using the concept of leisure benefits as *means of explanation* in leisure studies (by exploring associations with a variety of other leisure-related variables) to attain better understanding of leisure behaviour as an integrated process.

Leisure benefits: Conceptual structure and position in leisure studies

Most direct research on leisure benefits has been largely theoretical and conceptual in nature. Driver and Bruns (1999) recently have proposed an applied conceptual framework, the Benefits Approach to Leisure (BAL), which attempts to avoid much of the theoretical confusion generated by earlier studies (Philipp, 1997). They consider the BAL to be "an important paradigmatic shift in the way one perceives the delivery of leisure services and leisure behavior" (Driver & Bruns, 1999, p. 352). There are a number of reasons why the adoption of this new philosophical orientation is important for both leisure studies and practice.

First, a general, embrative concept of benefits like this offers an operational definition of the benefits of leisure that covers *all the benefits*, and hence, provides a common theoretical ground for leisure benefits research. Different studies have usually emphasized different dimensions of leisure benefits. The BAL approach introduces theoretical integration into the otherwise fragmented research in this area. Driver, Tinsley, and their colleagues (e.g., Driver, Tinsley, and Manfredi, 1991 and Tinsley and Tinsley, 1986) recognized a chain of causality in benefit formation and operation, in which some types of benefits are linked to other subsequent benefits (Figure 2.1). According to their conceptual framework ultimate, "end-state" benefits such as attaining life satisfaction, self-actualization, personal growth, better health, or family solidarity, fit the conceptualization of leisure benefits as a "*desirable change of state*" or "*improved conditions*" (Driver, Brown, & Peterson, 1991; Driver & Bruns, 1999; Driver, Tinsley, & Manfredi, 1991;



Causal model of leisure constraints*

Figure 2.1

*This model is created by the author based on theoretical ideas developed by Colton (1995), Driver & Bruns (1999), Driver, Tinsley & Manfredo (1991), and also on the concepts considered in the current study

Schreyer & Driver, 1989). Apart from personal psychological, physical, and psycho-physiological benefits, this type of beneficial outcome of leisure and recreation may include social and economic benefits (e.g., crime reduction, community wellness, job creation, reduced job absenteeism and health care costs) (Driver, 1992; Sefton & Mummary, 1995), as well as environmental benefits (e.g., preserving natural amenities and historic sites).

At the same time, Driver and associates (Driver et al., 1991c) identified a large group of "intermediate" benefits in the chain of benefits associated with leisure behaviour (Figure 2.1). These benefits can best be understood as "intervening variables" falling in between the "antecedents" (i.e., anticipated benefits and leisure participation) and "end-state" consequences (such as life satisfaction, physical health, quality of life). They do not fall under the definition of "improved condition." Driver and Bruns (1999) identify this type of benefit as the *realization of specific satisfying psychological experiences or psychological (and/or physical) outcomes*. "These types of benefits accrue only to individuals -- not to groups or to the physical environment -- and include all satisfying psychological outcomes related to leisure" (e.g., successfully testing one's skills, experiencing closeness as a family, and relieving a mental or physical stress)" (p. 352). From this viewpoint, "second-order" beneficial consequences, such as life satisfaction, flow from the attainment of "first-order" beneficial consequences, such as relaxation (Philipp, 1997, p. 192). In addition to the benefit categories noted above, Driver and Bruns added "the *prevention of a worse condition through maintenance of a desired condition*" to the array of the benefits comprising their BAL system (p. 352).

In addition, the present study considers leisure benefits as a dynamic unity of already "realized" benefits, which people enjoy as a result of leisure participation, and "anticipated" benefits, which individuals think (perceive) they would derive from their leisure engagements (Colton, 1995). Therefore, a new, "motivational," dimension of anticipated benefits was introduced into Driver et al.'s original chain of benefit causality (Figure 2.1).

It is clear that varied leisure benefits discussed above do not contradict, but rather complement each other, comprising together a broad, multifaceted concept of benefits, which works as a dynamic model connecting different aspects of leisure experience into an integrated process (including specialized but at the same time closely interrelated domains of leisure motivations and satisfaction). Moreover, the broadly conceived and flexible concept of benefits can be instrumental in identifying links with other aspects of leisure at the different phases of the benefit chain (e.g., connections with leisure constraints), contributing thereby to better

understanding leisure in general and to consolidation of specialized fields in leisure studies.

A substantial practical potential of the benefits approach to leisure as manifested in the BAL system is a second reason why adoption of this conceptual system is important to leisure research. While leisure research in North America has adopted the experience approach to leisure, the conventional approach to leisure service *delivery* is still largely activity-based. The managerial effort has been concentrated on *inputs* to the leisure delivery system (e.g., investment and maintenance capital, facilities, programs, and marketing), and focused rather on means of leisure service delivery (activity opportunities) than on the ends of capturing desired outcomes or impacts. In contrast, the benefits approach introduces experience strategy to leisure management and is *outcome* oriented (focuses on *why* any leisure service is delivered and its potential beneficial outcomes at different places and times) (Driver and Bruns, 1999).

In summary, a comprehensive conceptual framework of leisure benefits discussed above can be a good starting point in clarifying confusing terminology and consolidating varied findings and theoretical positions into a meaningful body of leisure research. This direct benefit-oriented framework offers researchers and practitioners a clearer conceptual structure for research or operation compared to other fields of leisure studies that attempt to explain the meaning of leisure involvement. For example, there is no unifying theory of *motivation*, and conceptualizations of leisure motivation vary from study to study. Similarly, "the term *satisfaction* has had a variety of meanings and applications in the study of leisure and leisure services. These differences have their roots in the different conceptual and theoretical treatments of satisfaction found in the social science literature" (Mannell, 1999, p. 238). The benefits approach is not intended to replace research in the fields of motivation and satisfaction, which can be conceptually broader than benefits. However, it can be instrumental in "bringing together" these major blocks of leisure studies, which, according to some conceptualizations are "inextricably linked" as "two sides of the same coin" (Mannell, 1999, p. 238). This connection becomes very explicit and clear through the benefits framework, and it can be a useful tool to complement and further integrate studies in leisure motivation and satisfaction (Figure 2.1).

Anticipated benefits of leisure

The comprehensive character of leisure benefits (Figure 2.1) made it impossible to incorporate analysis of all links of the chain in this research. Therefore, the study faced a dilemma of choosing which benefits should be measured and analyzed in conjunction with other leisure-

related variables. The following considerations were taken into account to select the appropriate type of benefit. Firstly, many of the "end of state" benefits or "improved conditions" (life satisfaction, health improvement, etc.) cannot be defined without understanding "first-order beneficial consequences" or intermediate benefits, which represent the largest category of benefits. Also, it was assumed that people do not think of or engage in recreation necessarily contemplating about remote positive consequences, such as life satisfaction or quality of life, but rather anticipate immediate gratifications (feeling relaxed, enjoying company of family and friends, or enjoying nature). Offering less abstract benefit items to survey participants for evaluation may be instrumental in triggering spontaneous recollection of and/or anticipation of positive experiences, and hence, result in more accurate responses. Thus, the benefit items used in this study reflected positive experiences and outcomes which can occur in the *process* of leisure participation rather than the ultimate "improved conditions."

Secondly, the studied benefits were specified and measured as *anticipated* psychological (or other) positive leisure outcomes rather than the benefits that are "realized" or "learned" directly upon participation. Consequently, the study is confined to examination of only a "*motivational component*" of leisure benefits, which can be classified as "anticipated intermediate benefits."

Although the distinction between *anticipated* and *realized* benefits is useful for clarification of the research approach and results, it should be understood that these experiences are normally very close in nature and reflect a dynamic unity of leisure motivations and satisfaction (Figure 2.1). Individual anticipated benefits could be based largely on past realized benefits and hence, there could be a considerable overlap of the two. At the same time, anticipated benefits is a more complex construct compared to the ones resulting directly from participation. They can be affected by subsequent changes in perceptions or swings in mood. This can add obscurity to their measurement. Tarrant, Manfredo, and Driver (1994), however, cite a number of sources indicating that anticipated benefits can be a reliable measure of leisure experiences. They suggest that recreation experiences prevail well beyond initial participation through the recollection of past events. The recollections may evoke responses similar in direction, though not necessarily of the same magnitude, as the actual situation. Also, it could be argued that anticipated benefits can reflect "settled," balanced, and enduring convictions of individuals (based on past experiences) about beneficial outcomes they usually seek and appreciate the most from their leisure.

Theory and measurement of leisure benefits

Past research on leisure benefits and related issues (e.g., psychological needs and recreation experience preferences) has made a substantial contribution to the development of comprehensive taxonomies and measurement instruments. The Paragraphs About Leisure (PAL) scale (Tinsley, Barrett, & Kass, 1977; Tinsley & Kass, 1978, 1979) and Recreation Experience Preferences (REP) scale (Driver et al., 1991c; Manfredo, Driver, & Tarrant, 1996; Schreyer & Driver, 1989) are extensive and empirically tested instruments, which identify and measure *intermediate* benefits in the chain of benefits accruing from leisure (Figure 2.1).

The PAL scale was conceptually rooted in the notion of "psychological needs." The frequently encountered term "need" emerged in the leisure research and planning literature quite some time ago (Mercer, 1973). It has been postulated that human behaviour is motivated, to varying degrees, by a range of biological, cognitive, and psychological needs. There is little consensus as to what constitutes a complete set of human needs, but no needs and satisfactions have been discovered that are unique to leisure (Mannell, 1999). Maslow (1987, 1999) theorized that there are just a few basic needs, and that human needs are hierarchically structured. The satisfaction of low-level needs (such as those of survival, safety and security), gives way to a new set of motives oriented towards satisfaction of the higher level needs of psychological growth. Leisure is seen as a domain of human behaviour that has the potential to provide for fulfilment of a wide range of human needs, especially those in the upper levels of the hierarchy. In fact, leisure may be the best domain for this purpose (Mannell, 1999). It is based on free choice of engagements (as opposed to the activities aimed at satisfaction of the "deficiency needs") and therefore, opens the way for self-expression, spontaneity, realization of potentialities, and creativity (which are indicative of what Maslow called "self-actualization").

According to Tinsley and associates, physical and mental health, life satisfaction, and personal growth depend on gratification of the individual's psychological needs (Tinsley et al., 1987). These authors theorized that meeting psychological needs through leisure involvement results in certain benefits, and that different leisure activities can provide "different levels" of desired benefits and hence, different levels of satisfaction. Therefore, in order to effectively assist recreationists in structuring their leisure to maximise its positive outcomes, the knowledge is required of the benefit characteristics of the various leisure activities. Using this theoretical orientation, Tinsley et al. developed an inventory of 44 "psychological needs" that may be gratified by participation in leisure. It was established that seventeen of these needs were generically linked

to many leisure activities (Tinsley and Kass, 1978), whereas 27 "need-gratifying dimensions" varied across leisure activities. This last group of dimensions was subsequently factor analyzed to form 8 generalized "psychological benefits of leisure," namely "Self-expression," "Companionship," "Power," "Compensation," "Security," "Service," "Intellectual Aestheticism," and "Solitude" (Tinsley, 1984; Tinsley and Kass, 1979).

Similarly to the PAL scale, the Recreation Experience Preferences (REP) Scales developed by Driver and associates were founded on the notion that "leisure opportunities are important in helping people meet basic psychological needs" (Driver et al., 1991c, p. 264). However, the purposes of the two instruments were different. While the PAL scale was intended for "counselling," the REP scales had a clear managerial orientation, and their creators followed a conceptual path that was essentially different from the approach of Tinsley and his collaborators.

Driver et al.'s research commenced with looking at "motivational bases of leisure choice" and assessing the relative importance of "benefit-implying reasons" why recreationists select particular activities and environments (Driver et al., 1991c, p. 272). (In contrast, the PAL measured the extent to which each need is gratified by participation in a given activity and did not quantify how important it is to the respondent to have these needs met, or his/her reason for choosing the activity). According to Driver et al. (1991c), the creators of the REP largely based conceptualization of their psychometric instruments on Fishbein and Ajzen's Theory of Reasoned Action, which was later refined by Ajzen into the Theory of Planned Behaviour (Fishbein & Ajzen, 1975; Ajzen, 1985):

Fishbein and Ajzen's theory is based in expectancy-valence formulations of human decisionmaking. Specifically under that model, choice of recreation would be a function of (1) the salient beliefs regarding the outcomes of making specific recreation choice, (2) the strength of beliefs about these outcomes, (3) an evaluation of the desirability of these outcomes, and (4) beliefs about what others feel the person should choose and the motivation to comply with others. Since the focus of the Fishbein-Ajzen theory is upon behavioral prediction, and since it explicitly deals with beliefs about specific consequences of particular leisure behavior, it has helped guide conceptualization of leisure benefits as advantageous outcomes or consequences (Driver et al., 1991c, p. 273).

The items comprising the REP scale were mostly derived from the leisure literature, focus group sessions, and other sources. They were subsequently refined and complemented as a result of many empirical replications. Currently, 43 REP scales exist, which can potentially incorporate up to 328 items from Driver's (1983) item bank (quoted in Manfredo et al., 1996) "to measure the extent to which specific experiences are desired and expected from leisure activities" (Driver et al., 1991c, p. 275; Schreyer & Driver, 1989). This orientation of the REP brings them close to

"anticipated leisure benefits" described in the preceding sub-section. Furthermore, taking into account the character of the measured experiences, they can be classified, based on Driver & Bruns' (1999) conceptualization, as "intermediate satisfying psychological/physical outcomes" associated with leisure. The original 43 scales were empirically grouped into the following 19 "domains": "Enjoy nature," "Physical fitness," "Reduce tensions," "Escape physical stressors," "Outdoor learning," "Share similar values," "Independence," "Family relations," "Introspection," "Be with considerate people (social security)," "Achievement/stimulation," "Physical rest," "Teach/lead others," "Risk taking," "Risk reduction," "Meet new people," "Creativity," "Nostalgia," "Agreeable temperatures."

The development and refinement of the PAL and REP scales was accompanied and followed by a large effort directed to confirmation of their statistical properties including reliability and validity (e.g., Graefe, Ditton, Roggenbuck, & Schreyer, 1981; Manfreda, Driver, & Tarrant, 1996; Rosenthal, Waldman, & Driver, 1982; Tinsley & Bowman, 1986; Tinsley & Kass, 1980; Tinsley, Kass, & Driver, 1981). As a result, an extensive body of knowledge has been accumulated providing reasonable or at least preliminary evidence of different types of validity and reliability of the scales. A relatively recent study by Manfreda et al. (1996) provided a summary integrative analyses of the structure of the REP scales by conducting a meta-analysis of 36 studies that used REP items. Confirmatory factor analysis supported the REP domain and scale structures. Computation of inter-item correlations for domains and scales showed high average correlations within scales and domains and relatively low average correlations between domains and scales, thereby supporting the discriminant validity of the scales.

Measurement approach to benefits adopted in this study

As noted before, the present study explores *anticipated intermediate* leisure benefits, which can be measured by the PAL and REP scales. Given that benefits imply the question why individuals engage in leisure, the questionnaire asked people to recall their reasons for participating by selecting items from the list of potential anticipated benefits. The scale also addressed the *importance* of each of the listed items to a respondent. This approach is close to Driver et al.'s measurement method incorporated in the REP scales. The PAL has different orientations and purposes, and its creators used different measurement procedures, but some overlap is apparent in the scales in terms of "benefit themes."

Although the PAL and REP scales are comprehensive and well-refined measurements, which

have a solid theoretical and conceptual base and have undergone a thorough empirical verification, it was problematic to use their original versions to measure anticipated benefits for the current study. The original REP item pool is too extensive for the questionnaire which has to cover several leisure domains. Furthermore, the REP scales were developed focusing on outdoor recreation, and therefore, should be applied with caution to generic sets of leisure activities. At the same time, the dimensions comprising the PAL scale (e.g., achievement, advancement, affiliation, compensation) appear to be too abstract and would require additional descriptions and clarification. Therefore, the decision was made to compile a benefit measurement scale specifically for this study. In order to make the scale compact enough for the questionnaire format without compromising the diversity of leisure benefits, the PAL and REP scales were used as guides to make sure that the new scale's items reflected as a broad range of benefits as possible and covered major benefit domains. It was assumed that selective utilization of the REP scales to measure beneficial outcomes resulting from leisure activities other than outdoor recreation was justified. The REP scales are very versatile and embrace primarily "generic" benefit domains, such as "Physical fitness," "Reduce tension," "Family relations," "Creativity," etc., which are not exclusive to outdoor recreation. Their resemblance to some of the PAL dimensions, which were created with reference to a broad range of leisure activities, further supports this argument.

Besides the PAL and REP, the 38-item scale created for the present study is based on a number of additional sources. Among them are small inventories of "reasons" for taking part in recreation from 1992 Alberta Recreation Survey and Jackson's 1984 survey on recreation, energy, and the environment.

The measurement tactic adopted for this study also differs from the usual administration of the REP and PAL scales (Driver et al., 1991). The major difference is that the anticipated benefits (their perceived importance ranging from "not important" to "very important") were measured separately from reported leisure activities (i.e., they were not "activity-specific"). The connections with leisure pursuits were explored later through statistical procedures. This method permits the analysis of a large group of diversified leisure activities (77 items) with varied benefits and vice versa. Also, both activity and benefit variables can be aggregated and general associations between their types explored.¹

¹ In contrast, measurements of benefits (or psychological needs) based on PAL essentially incorporated activities into the procedure. Respondents were instructed to include the extent to which each need is gratified while participating in the activity being described. However, the PAL

In summary, the measurement instrument used here is largely underlain by the PAL and REP scales. However, adjustments were made in the item composition to accommodate questionnaire space limitations and the generic character of the study in terms of leisure participants, activities, and locations. The scale was administered so as to ensure statistical flexibility (to provide multi-level analyses of the links between different aspects of leisure).

The role of leisure benefits in explaining leisure behaviour: links to other domains of leisure

The studies exploring associations of leisure benefits with other leisure-related variables have been largely focused on leisure activities (their "benefit generating" properties). The utility of these studies is that they have provided a vital perspective from which to view leisure pursuits, by highlighting their psychological (experiential) nature as opposed to attempts to understand leisure behaviour through analyses of participation frequencies.

Tinsley and Johnson (1984) noted that prevalent classifications of leisure activities based on frequencies of participation did not enhance the understanding and explanation of leisure behaviour (told little about why the individual participates in the activity or about psychological nature of the individual's experience when participating in the activity). They offered an alternative preliminary taxonomy of leisure activities based on data regarding the psychological benefits of participation collected using a full, 44-scale version of the Paragraphs About Leisure (PAL). Each respondent was asked to describe one out of 34 leisure activities by indicating the extent to which participation in that activity resulted in each of the 44 psychological benefits.

Cluster analysis revealed nine "benefit-based" groups of leisure activities. The benefits most relevant to the activities assigned to each cluster were identified. For example, activities comprising the "Hedonistic Companionship" cluster (attending popular musical performances and drinking and socializing) were found to be the richest source available for the "power" benefit (to satisfy needs to be aggressive, authoritarian, dominant and exhibitionistic in relationships with others). On the other hand, activities of the "Supportive Companionship" cluster (picnicking and visiting friends and relatives) provide not much of a power benefit, but offer considerable amounts of service and security benefits. Tinsley and Tinsley (1988) provided similar, but more specific

did not quantify how important were these needs to the respondent. The REP evaluated either the "importance" of each scale item or its contribution to the "total expected satisfaction, but these ratings were also obtained in reference to "a particular activity at a certain place" (Driver et al., 1991c, p. 273).

data on each of the 34 individual leisure activities.

The important practical implications of Tinsley and Johnson's research is uncovering the "substitutability" of leisure engagements, because activities grouped in the same cluster provide similar benefits. This finding can also be potentially instrumental for theoretical reasoning and establishing links with areas of leisure studies which focus on other aspects of leisure experience and behaviour, such as exploring leisure constraints and the factors underlying constraints negotiation process (see the corresponding section of this chapter).

A substantial research effort of Tinsley et al. was directed at the psychological leisure benefits of elderly persons. Tinsley et al. (1985) created a 6-cluster classification system of leisure activities similar to one of Tinsley and Johnson, but based on a smaller number of activities and with reference to the elderly. Further analysis of this data involving age, gender, health, and economic status (Tinsley et al., 1987) uncovered the following general patterns. Women over 65 years of age of lower socioeconomic status and morale reported companionship to be the principal type of benefit resulting from their leisure. Women aged 55 to 65 considered recognition to be the principal benefit, suggesting that leisure probably offers an alternative (to work) method of satisfying need for recognition and self-esteem. Persons over 65 years of age from higher socioeconomic backgrounds reported satisfaction of their needs for power through their leisure experiences. Leisure activities associated with this type of benefit (volunteer professional and service activities and attending meetings of social groups) contrasted other findings reported in the literature postulating that increasing age is associated with a growing orientation toward home-based passive leisure. Instead, economic security seems to free at least some people to take part in activities in which they can rise to positions of power and influence. These results underscored the importance of viewing "the elderly" (and other groups associated with age, gender, etc.) as a heterogeneous rather than homogeneous entity. The authors stressed the necessity of further research to link factors such as morale, physical health, age, gender, and economic status with the psychological benefits sought from leisure.

A number of studies explored "psychological outcomes" and "experiences" associated with outdoor activities, and were largely directed at the exploration of possibilities for experience-based management for outdoor recreation areas (e.g., Driver, 1986; Driver & Cooksey, 1980; Manfredi, Driver & Brown, 1983; Manfredi, Sneegas, Driver, & Bright, 1989).

These studies contributed substantially to knowledge of the relative importance of benefits (or positive "psychological outcomes") accruing from outdoor recreation. Extensive non-activity-

specific data, which covered all activities within different wilderness and non-wilderness areas (Driver, 1986; Driver, Tinsley, & Manfredi, 1991), showed that enjoying nature, physical fitness, reducing tensions, and escaping noise and crowds were among the top "experience preference domains" that contributed the most to "total expected satisfaction" of the leisure participants in the majority of wilderness areas. In contrast, risk taking or reduction and meeting new people did not have positive effects on expected overall satisfaction. Driver and Cooksey (1980) measured and compared psychological outcomes resulting from 6 activities (camping, boating, picnicking, swimming, sailing, and fishing) using 24 REP scales. Escaping daily routine, physical rest, enjoying nature, and escaping physical pressures were rated as the most "important" results across the listed activities, whereas social recognition and risk taking were rated last. Manfredi et al.'s (1989) study indicated that hunting was perceived to contribute the most to family togetherness, independence, positive self-image and attaining physical effectiveness, while social acceptance and stress avoidance were the least important "end-states."

Variations among activities in terms of their perceived "benefit-generating" attributes is another important feature reflected in these examples. The notion that those participating in different recreational activities receive different patterns of experience outcomes was supported by past research. In Driver and Cooksey's data, for instance, the emphasis on psychological outcomes such as "Physical rest," "Escape physical pressures," and "Achievement" varied the most across the six outdoor pursuits. Manfredi et al. (1983, p. 266) put forward and empirically verified hypotheses regarding wilderness recreation. They postulated that there are definable segments of recreationists that differ according to the experience they desire (the latter defined as "the package of specific psychological outcomes desired by a recreationist when choosing to engage in a specific recreation activity"), and that activity participation differs among recreationists desiring different experiences.

Moreover, different "experience preference" groups were uncovered among participants in individual leisure activities, including fishing (Driver & Cooksey, 1980), cross-country skiing (Haas, Driver, & Brown, 1981), and hunting (Hautaluoma & Brown, 1978). These results uncovered heterogeneity in desired leisure outcomes and motivations within a single activity group and further demonstrated that the nature of leisure-related benefits can be very complex. These studies indicate a clear need to focus more attention on factors other than leisure activities that can affect leisure outcomes. Besides studying the social, demographic, and economic characteristics of each activity user type to reveal "how different types of users benefit in different ways" (Driver et

al., 1991c, p. 277), analysis of association of leisure benefits with other variables (personal attributes such as values and attitudes as well as leisure constraints) can provide additional insights and explanations of leisure choices and desired outcomes.

Overall, in spite of the conceptual and methodological variations, the results of discussed studies can be reduced to the following conclusions. Although individual leisure pursuits are usually a source of a number of beneficial outcomes, and there are similarities among activities in terms of perceived benefits, the levels of generated benefits can also vary from activity to activity, and this variation is reflected in different participation patterns of people seeking different experiences.

The studies that were based on broader ranges of leisure-related variables did not focus on leisure benefits, but rather on the more generally measured concepts of motivation and satisfaction. Ragheb and Tate (1993), for example, proposed a causal behavioural model of leisure participation, based on strength of attitudes toward leisure, motivation and satisfaction. Using a causal modelling design the study provided support for the causal relationships between intensity of motivation, leisure participation and satisfaction. In conclusion they pointed to the "compelling rationale" for including a comprehensively measured leisure constraint construct in future models along with other variables which might be of potential use in explaining leisure behaviour.

Carroll and Alexandris (1997) explored Jackson's et al.'s (1993) proposition that motivational factors might intervene within the individual's decision making process and might interact with the perception of constraints (for further details on their work refer to the constraints section of this chapter). They discovered that the strength of motivation for sport participation was significantly and negatively related to the perception of constraints as a whole, and positively related to sport participation, supporting thereby Jackson et al.'s proposition.

Areas that need to be explored and the anticipated contribution of the present study to existing knowledge

This study contributes to existing knowledge in the field of leisure benefits and to the general knowledge about leisure in the following ways:

(1) As previously noted, there is a gap between the well-developed theoretical and conceptual structure in the field of leisure benefits (Driver & Bruns, 1999) and the lack of systematic empirical research using this framework as a guiding paradigm. Stated another way, the available "theoretical and conceptual potential" in the area is has not yet been "fully utilized." The present research was designed to address this need by providing a systematic investigation of one of the

elements comprising the system of leisure benefits, namely anticipated benefits (Figure 2.1).

(2) A distinctive and central feature of this study is turning the examination of leisure benefits into an integrating tool connecting other leisure-related variables and enhancing a complex, multifaceted insight into the factors underlying leisure behaviour. The study recognizes that leisure experience is too complicated a phenomenon to be reduced to accrued or anticipated benefits. At the same time, perceived benefits can be conceptualized as a *key experience*, which can permeate practically any aspect or stage of leisure behaviour (from the anticipation of potential gains through the process of participation to the resulting aftermath experiences). Unlike previous benefit-related research, which largely focused on the connections of psychological outcomes, need satisfaction, or leisure benefits to activity participation, the study presented here goes beyond this association and investigates a broad range of links of anticipated benefits with personal attributes and different aspects of leisure. These links include associations with more general variables reflecting leisure motivation, and also with environmental attitudes, leisure constraints, and constraints negotiation. Leisure benefits, therefore, "act" in this study as one of the focal, catalytic, or consolidating points upon which the knowledge about leisure (the various themes and components) can be integrated. The analyses of the relationships between leisure benefits and economic and demographic characteristics complement the described associations, contributing at the same time to a scarce body of evidence in this field.

Reported attempts of integrated analyses of leisure behaviour (Carroll & Alexandris, 1997; Ragheb & Tate, 1993) focused on generalized aspects of motivation and participation and hence, were limited to detecting very general associations. Introduction of an extensive set of diversified anticipated leisure benefits in the current study substantially "enriches" motivational aspects of the analysis. The latter can be executed on various levels of generality and the most "influential" individual perceived benefits and their types can be identified.

(3) The present study stands out from previous research by considering leisure benefits in conjunction with other factors reflecting *leisure motivations*. It was repeatedly mentioned in this chapter that anticipated benefits reflect the motivational side of the concept of leisure benefits (Figure 2.1). Therefore, the decision was made to "reinforce" the motivational component of the analysis by introducing additional motivation-related variables, including measurement of the perceived importance of engaging in leisure. Consideration of anticipated benefits in unison with other "motivational factors" provides additional ways of linking the variables, and enhances depth and comprehensiveness of the examination of leisure choices.

(4) Other innovative approaches in this study pertain to the scope of the research, measurement administration and analytical strategies. To start with, this study is distinguished by its *general* nature (which is conditioned by its integrative character) and the fact that it targets broad ("generic") ranges of anticipated benefits and leisure activities as well as people, irrespective of their age, gender, physical health, and so on. This approach contrasts with the past research, which has often concentrated on selected groups of recreation activities (e.g., outdoor recreation, sport participation), individual leisure benefits, or specific populations (e.g., students, elderly people).

Unlike preceding studies, anticipated leisure benefits were measured irrespective of leisure activities. The links of separately measured benefits to leisure activities, constraints, environmental attitudes, and other variables were determined through statistical procedures. It was assumed that not "activity-specific" measurement would allow respondents to concentrate on articulation of their most important leisure expectations rather than trying to "fasten" leisure benefits to specific activities. This method makes it possible to measure a large number of leisure activities and benefits and to perform a variety of aggregation and classification procedures with the variables.

The linkages between the variables, including anticipated leisure benefits and motivations, were assessed through systematic analyses at various levels of generality. In order to perform these procedures, the data underwent multi-stage classifications. Along with the types of benefits derived through factor analysis, more generalized "benefit profiles" of the people studied were obtained by means of cluster analysis to uncover additional patterns within the data and allow investigation of general associations with other aspects of leisure (clusters or "profiles" of leisure activities, constraints and environmental attitudes).

Environmental Attitudes and Leisure Behaviour

The current and other sections of this chapter reflect the complexity of leisure behaviour. This complexity has been emphasized repeatedly in the related literature (see, for example, Jackson & Burton, 1999), which also has stressed the necessity of providing comprehensive and coherent explanations of leisure by looking into and connecting different facets of this complex phenomenon. For example, previous research has determined both situational and individual factors to be important for the understanding and explanation of leisure behaviour (Rojek, 1997; Stover & Garbin, 1982). The leisure constraints approach incorporated in this study (see the

following section of this chapter) makes it possible to encompass many dimensions of the situational hypothesis (e.g. effects of recreational opportunity and social environment on leisure choices). The individual hypothesis maintains that the reason a person chooses to recreate in a given way may be attributed to certain personal characteristics (Stover & Garbin, 1982), including personality traits and attitudes.

The present study considers the effects of personal characteristics such as age and gender on leisure behaviour. However, concerns were raised some time ago that socio-demographic variables could be, in reality, "merely surrogates for other variables, such as preferences, attitudes and values" (Burton, 1981 p. 40). Burton's point is still true and appropriate today, as rapid social transformation continues toward increased plurality and fragmentation of contemporary life, marked by the gradual erosion of social, cultural, and economic boundaries (Coalter, 1999; Veal, 1998; Rojek, 1997) (see also the discussion on "structural" and "agency" approaches to leisure studies in the Introduction). "Old collective identities and common interests of class, gender, race, community, and even nation have become fragmented and diffuse" (Coalter, 1999, p. 511), and therefore they "are no longer stable indicators of human values" (Burton, 1981 p. 40). Given that the consequences of human values are "manifested in virtually all phenomena that social scientists might consider worth investigating and understanding" (Rokeach, 1973, p. 3), leisure scholars must "take cognizance of a variety of values" (Burton, 1981, p. 41) and their effects on leisure. The present study extends analysis of personal attributes that can affect leisure to people's "values measured as environmental attitudes" (Jackson, 1986, p. 18).

It is apparent that during the past few decades advanced industrial society has been undergoing a fundamental cultural shift (Inglehart, 1990), which has been accompanied by a gradual but pervasive switch from predominantly "materialist" toward "postmaterialist" values. One consequence of value transformations has been "increasing emphasis on environmental protection and preserving the quality of life." As a result, environmental concern is presently a widespread phenomenon (see below), which can affect various aspects of people's lives, including leisure. Leisure-related literature indicates interest in exploring how people's attitudes toward the environment are associated with patterns of their leisure behaviour (e.g., Bikales & Manning, 1990; Coburn, 1994; Dunlap & Heffernan, 1975; Geisler, Martinson, & Wilkening, 1977; Jackson, 1986, 1989; Tarrant & Green, 1999; Van Liere & Noe, 1981).

Given that attitudes are a function of more general values held by individuals (Rokeach, 1973; see also next sub-section), it could be hypothesized that "biospheric" or

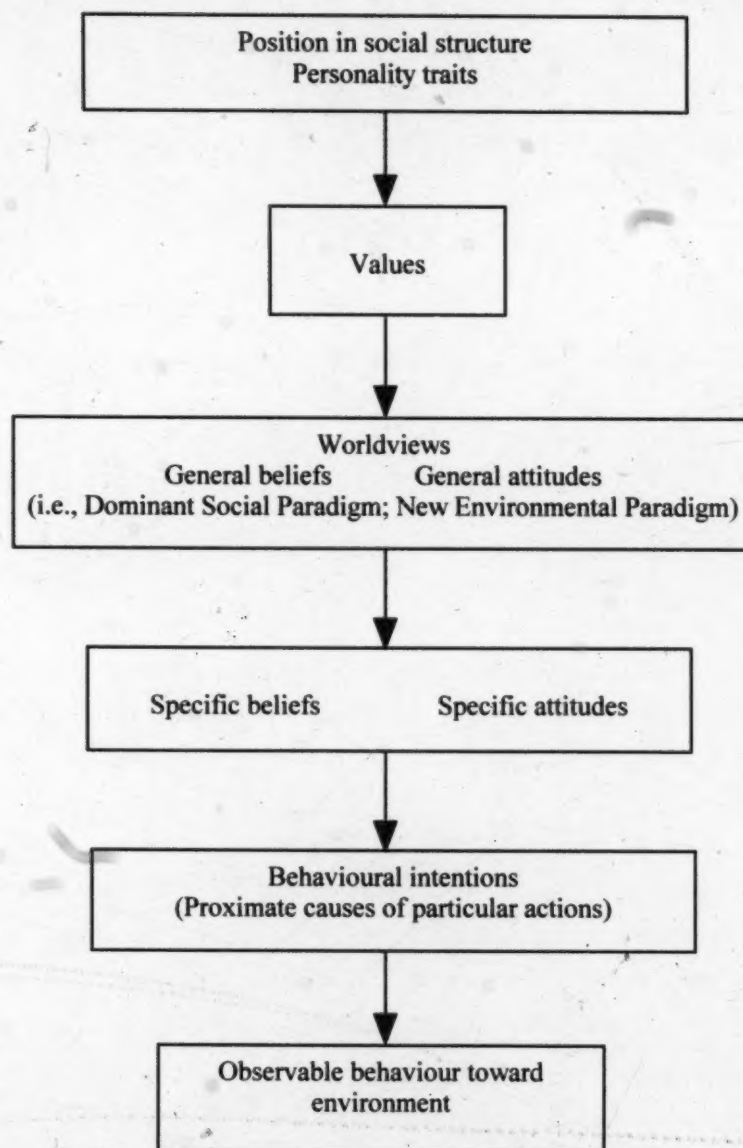
"universalism/biospheric" values such as "unity with nature," "protecting the environment," respecting the Earth, and "a world of beauty" (including beauty of nature) (Karp, 1996, p. 124; Rokeach, 1973, p. 28; Stern, Dietz, & Guagnano, 1995, p. 733) could be antecedent to the environmental attitudes considered in this study. This study focuses on examination of how variations in values reflected in *environmental attitudes* can affect leisure choices of individuals.

Values, beliefs and attitudes: Conceptual distinctions

The conceptual framework for the investigation of attitudes adopted in this research is based on a combination of ideas, models and definitions offered by Fishbein & Ajzen (1975), Rokeach (1973, 1979), Schwartz (1992), and Stern, Dietz and Guagnano (1995) (Figure 2.2). It is clear from the available literature that values are regarded as more fundamental in an individual's personality than beliefs and attitudes. The latter evolve around specific objects or situations; value, on the other hand, is "a single belief of a very special kind" (Rokeach, 1973, p. 18). Rokeach defines *value* as an enduring belief that a specific mode of conduct (e.g., honesty, responsibility) or end-state of existence (e.g., inner harmony, self-respect) is personally or socially preferable. Values can also be defined as "multifaceted standards that guide conduct in a variety of ways" (p. 13): "They serve as standards or criteria to guide not only action but also judgement, choice, attitude, evaluation, argument, exhortation, rationalization ..." (p. 2). A person's values cluster together to form a *value system*, that is, an organization of values in terms of their relative importance (Kalven, 1982; Rokeach, 1973).

According to Rokeach, "an attitude differs from a value in that the attitude refers to an organization of several beliefs around a specific object or situation," whereas "value transcends objects and situations" (1973, p. 18). A value is a standard but an attitude is not. Favourable or unfavourable evaluations of numerous attitude objects and situations may be based upon a relatively small number of values serving as standards. It is estimated that values number only in the dozens, while attitudes number in the thousands. Values are "determinants of attitudes" and the latter are "functions of values" (p.18).

Although the concepts of *attitudes* and *beliefs* frequently are used interchangeably, Fishbein and Ajzen (1975) insist that "some distinctions ... are necessary for an adequate understanding of the attitude area" (p. 11). According to them, the distinctions are similar to those between cognition and affect. While beliefs represent the information an individual has about an object, an attitude can be based on a series of beliefs and refers to a person's favourable or unfavourable



Schematic model of environmental concern*

Figure 2.2

*This model is a modified version of "A Schematic Causal Model of Environmental Concern" by Stern, Dietz, & Guagnano (1995).

evaluation of an object or situation. Thus, "the major characteristic that distinguishes attitude from other concepts is its evaluative or affective nature" (Fishbein and Ajzen, 1975, pp. 11, 12). For example, each individual who participated in the survey for this study had his/her own distinctive system of beliefs and convictions about the way humans fit in nature and should interact with it. The questionnaire (Likert-type) scale, offered to the respondents for the assessment, contained a representative sample of statements, which reflect different beliefs about the environment and related problems. By providing answers reflecting agreement or disagreement with these statements, each person expressed his/her environmental attitudes. When summed, they provided a single index of a person's favourable, unfavourable, or "neutral" disposition toward the environment.

The schematic causal model of environmental concern (Figure 2.2) views values as causally antecedent to *worldviews* based on the following considerations. First, values probably form at an early stage in life, within the family, whereas worldviews may be the result of political and social experiences in the larger world. Second, values appear to be more general than worldviews, encompassing broad dispositions or orientations that seem nearly as basic as personality itself. Third, values are probably more stable over the life course, while even very general beliefs could be vulnerable to empirical challenge (Stern et al., 1995). Worldviews, in turn, encompass *general* beliefs and attitudes, such as those comprising the New Environmental Paradigm (Dunlap & Van Liere, 1978), which reflects a general disposition toward the environment and is discussed later in this chapter.

Values and worldviews are expected to underlie more specific beliefs and attitudes, such as attitudes towards specific environmental issues (air and water pollution, hazardous waste combustion, deterioration of recreation sites, etc.), which in turn are antecedent to personally held norms, intentions, and other proximate causes of particular actions. "Values and worldview act as filters for new information or ideas. Information congruent with an individual's values and worldview will be more likely to influence (more specific) beliefs and attitudes" (Stern et al., 1995, p. 726).

The discussion of the behavioural implications of environmental attitudes later in the chapter requires clarification of the concepts of *behavioural intentions* and *behaviour*. While the first refers to a person's intentions or degree of commitment to perform various behaviours (e.g., willingness to undertake various actions in order to safeguard the environment, such as recycling, energy conservation or "environmentally-friendly" recreation), the term "behaviour" refers to

"observable acts" (Fishbein and Ajzen, 1975, p. 13) which actually take place. Considering an adoption of a broad concept of leisure behaviour in this study, which also presumes involvement of experiences and perceptions, behaviours which represent "actions," such as leisure activity participation, may be termed "observable behaviour" or "behavioural outcomes."

Although it is assumed that the major "flow of causation" in the conceptual framework exhibited in Figure 2.2 is from top to the bottom: "the factors on the top tend to be less mutable by the individual or over the life course than those near the bottom," "important feedbacks" might occur, such as the "effects of (ultimate) behavior on future beliefs and attitudes" (Fishbein & Ajzen, 1975, p. 15; Stern et al., 1995, p. 726).

Environmental attitudes: Conceptual base

Interest in topics related to the natural environment, including the theme of environmental attitudes, dates back to the 1960s and 1970s, when environmental deterioration became tangible and real to North Americans. At the heart of the arising concern was a growing public disillusionment with the conventional ways in which society viewed and used nature (Albrecht, Bultena, Hoiberg, & Nowak, 1982). In the ensuing years "public support for environmental protection not only has persisted but also has risen substantially" (Dunlap & Scarce, 1991, p. 651), and proenvironmental attitudes in the early to mid-1990s were at the highest level ever recorded (Howel & Laska, 1992; Wall, 1995; Tarrant & Green, 1999). One possible explanation why support has persisted for these issues might be a "paradigmatic" (worldview) shift in the public's orientation toward the physical environment (Geller & Lasley, 1985).

Thomas Kuhn (1970) defined "paradigm" as a group's way of looking at the world, its "entire constellation of beliefs, values, techniques, and so on" (p. 174). Although the concept was originally conceived to describe changes in scientific worldviews, it also has been extended to the societal level. Social paradigms, like scientific paradigms, eventually tend to be rejected (or at least revised) if experience continually disconfirms them (Dunlap & Van Liere, 1984).

It could be reasoned that the emergence of a new paradigmatic perspective in society toward the environment spawned a major paradigmatic shift in social science. The "traditional" doctrine of progress in Western culture based on belief in unrestricted economic growth, technological development, prosperity, and social stability was shared by contemporary sociology. Catton and Dunlap (1978a) maintained that the "apparent diversity" of the "numerous competing theoretical perspectives" in sociology was not "as important as the fundamental anthropocentrism underlying

all of them" (p. 42). Such a "basic sociological worldview" made it difficult for social science to deal meaningfully with the social implications of emerging ecological problems and constraints. This "impasse" signified a necessity for a major worldview change in social science in order to make it possible to understand the upsurging new public beliefs about the environment and "to comprehend contemporary and future social experience" (p. 42). As a result, a new direction in the social sciences (environmental sociology) emerged "that was aware of the impacts of social organization and social change on the natural environment" (Buttel, 1987, p. 466) and approached the "ecological crisis" not as a technological issue, but as a *social* problem (Catton & Dunlap, 1978a, p. 44).

To grasp and explain the social paradigmatic conflict, two contrasting concepts of basic beliefs about human-nature relationship were formulated and developed. The traditional, anthropocentric view in Western society focuses on humans to the neglect of habitat and considers humans as being above and exempt from the rest of nature. It was termed the "Human Exceptionalism Paradigm" (HEP) (Catton & Dunlap, 1978a,b) or "Dominant Social Paradigm" (DSP) (Dunlap & Van Liere, 1978, 1984; Pirages & Ehrlich, 1974) and defined as "the constellation of common values, beliefs, and shared wisdom about the physical and social environments that constitute a society's basic 'worldview.' Transmitted from generation to generation via institutional socialization, a DSP forms a core of a society's cultural heritage" (Dunlap & Van Liere, 1984, p. 1013). In this case it encompassed the belief in science and technology to find solutions to ecological problems and provides general guidance for both individual and societal behavior (Dunlap & Van Liere, 1984; Geller & Lasley, 1985).

While arguing that ecological problems largely stemmed from the traditional values and associated "maladaptive behaviour" and must be replaced by more realistic worldviews and behaviours (Dunlap & Van Liere, 1978; Maloney, Ward, & Braucht, 1975; Pirages & Ehrlich, 1974), some authors noted that in fact, new ideas resulting from the environmental movement started to sprout in the general population, representing a direct challenge to the DSP (Dunlap & Van Liere, 1978). The concept of "New Environmental Paradigm" (NEP) was developed to reflect a revolutionary new perspective, which views mankind as a part of nature (Catton & Dunlap, 1978a,b; Dunlap & Van Liere, 1978). The limits of the Earth's resources and economic growth are recognized by the NEP, and "human survival is understood to depend on the health of the global environment (and not only, for example, on human ingenuity)" (Stern et al., 1995, p. 725). Reverting to the conceptual framework outlined earlier in this chapter, the NEP and DSP,

which involve different environmental and associated issues, can be classified as worldviews or general beliefs (Figure 2.2) indicative of basic environmental attitudes.

The fact that different groups of researchers came independently to the ideas similar to those incorporated in the DSP and NEP, is symptomatic of the "objectivity" or reality of the paradigmatic changes noted above. For example, assumptions underlying American-originated DSP and NEP bear close resemblance to the concepts of a consumer and conserver society outlined in the 1977 report by the Science Council of Canada regarding future prospects of social and economic development of the country. The report expressed concern about the attributes of a contemporary "consumer society," characterized by a "high technology system" and a "dynamic drive to industrialize" with little thought being given to "undirected growth processes," "resource limits, waste, environmental impacts," and "regenerative capacity of the biosphere" (pp. 24, 26, and 36). An alternative, "conserver" approach to economic and social development, was proposed to ensure a "sustainable" future.

The concept of NEP also found additional substantiation by having close alliance with another, more general and independently developed Materialist/Postmaterialist thesis, which was empirically supported by data from a broad variety of countries. According to Inglehart (1990), there has been a gradual but pervasive shift in societal values in Western countries from predominantly Materialistic priorities toward Postmaterialistic goals. As he has observed, "One consequence of this shift has been a diminishing emphasis on economic growth in these societies, together with increasing emphasis on environmental protection and preserving the quality of life -- if necessary, even at the expense of economic growth" (p. 56).

Environmental attitudes: Measurement tools

The attempts to document the DSP-NEP paradigmatic transformation spawned efforts to create a reliable instrument to measure environmental attitudes. Early measurement scales contained a large number of items which often involved specific environmental issues, rather than a concentration on the broader, fundamental ("worldview") ideas (e.g., Maloney & Ward, 1973; Maloney et al., 1975). The development of the NEP and DSP scales by Dunlap and Van Liere (Dunlap and Van Liere, 1978, 1984) represented an important step toward encompassing *general* beliefs about the environment. The 12-item NEP scale is the most widely used measurement instrument, which has been subjected to the most methodological assessment. "Taken at face value, the scale seems to measure a sort of folk ecological theory of how the world works, the

nature of the biosphere, how it functions, and how it is affected by human actions" (Stern et al., 1995, p. 726). The 37-item DSP scale encompasses dimensions such as Support for Laissez Faire Government, Support for the Status Quo, Support for Private Property Rights, Faith in Science and Technology, Support for Individual Rights, Support for Economic Growth, Faith in Material Abundance, Faith in Future Prosperity (Dunlap & Van Liere, 1984).

Dunlap and Van Liere (1984) tested the DSP scale in empirical studies of Washington state citizens. The hypothesized negative relationship between endorsement of the DSP and concern for the environment (which included more specific concerns about overpopulation, pollution, and resource depletion) was strongly supported, although some DSP dimensions were more influential than others. In summary the authors mentioned that the negative relationship between commitment to the DSP and concern for environmental protection was still "far from perfect, reflecting the fact that many people endorsed the DSP and supported environmental protection efforts" (p. 1025). They explained this attitudinal ambivalence by referring to social-psychological findings that people often tend to hold conflicting cognitions (beliefs, values, attitudes, etc.). But in the long run there is a tendency for individuals to reduce the "dissonance" either in favour of environmental protection or the DSP.

As to the paradigmatic conflict, which is the societal-level equivalent of dissonance, Dunlap and Van Liere reasoned that optimistic expectations of the imminent demise of the DSP would be naive, taking into account that, in spite of the emergence of an alternative ecological worldview, the DSP still had a strong institutional base. However, they concluded that if the societal impacts of environmental degradation became more pronounced, the resultant experiences would provide increasing pressure for revision of DSP toward a more ecologically sustainable worldview.

The empirical study of the NEP based on the same Washington data (Dunlap & Van Liere, 1978) revealed "the surprising degree of public endorsement of the NEP," suggesting that a new, environmental, worldview was indeed emerging in society. The authors defined the NEP scale as a unidimensional one and provided evidence of its reliability (using Cronbach's *alpha*) and (predictive and construct) validity. Dunlap and Van Liere tentatively concluded that the scale represents a valid instrument for measuring the New Environmental Paradigm and suggested the following lines for future research. First, they stressed the necessity of further studies to validate and improve the NEP scale and to determine the degree of NEP acceptance among other populations. Second, they emphasized the importance of research on the relationship of the NEP to other attitudes and *actual behaviour*.

Subsequent inquiries into the NEP scale (both its full and truncated versions) (Albrecht, Bultena, Hoiberg, & Novak, 1982; Geller & Lasley, 1985; Gooch, 1995; and Noe & Snow, 1990) attempted to find out if it has "a potential universal appeal as a measurement tool for application in a variety of social and cultural situations" (Noe & Snow, 1990, p. 21). The major outcome of these studies was rejection of Dunlap and Van Liere's conclusion about its unidimensionality. The results unanimously confirmed that the scale was, instead, a multidimensional construct, tapping several discrete "attitudinal domains." This indicates that "environmental attitudes, even those generally viewed as pro-environment, are more complex than was originally supposed" (Lalonde & Jackson, unpublished manuscript). In the light of this discovery, Albrecht et al. (1982) concluded that considering the scale as unidimensional may result in losing valuable data and masking important differences in respondents' environmental dispositions. He argued that "the importance of analytically distinguishing between the domains is seen in the fact that they may, for some populations, be unrelated.... Persons may fully endorse some elements of the New Environmental Paradigm, while at the same time rejecting other elements" (p. 42).

However, the replicative studies generally were unable to confirm the configurations of the scale's dimensionality across the samples of different populations. There was a resemblance in the extracted factor patterns between Albrecht et al.'s and Geller & Lasley's studies. In both cases three similar factors were extracted: the balance of nature, limits to growth, and humans' relations with nature. At the same time, Noe and Snow and Gooch came up with only two factor subscales.

Jackson (1986) pointed out that, while Dunlap and Van Liere analyzed the DSP and NEP separately, "it is more appropriate to view these 'paradigms' as opposite ends of a spectrum of environmental attitudes and values, and to develop a single scale in which each individual's position with respect to the continuum as a whole is measured" (p. 8). As a result the *Environmental Attitudes Scale* was developed (Jackson, 1986). Its 24 statements incorporated all 12 of the original NEP items, a selection of statements from the DSP scale, and "additional statements from the resources and environmental literature, thus ensuring that the scale measured all relevant aspects of attitudes to nature, technology and the quality of life" (p. 10). Some statements were slightly modified to reflect the Canadian situation. Factor analysis of the new extended scale (based on data collected in Edmonton and Calgary, Alberta in 1984) resulted in the exclusion of three items due to low factor loadings. The results strengthened the argument in favour of multidimensionality of environmental attitudes. The remaining 21 statements formed the following four dimensions: "Negative consequences of growth and technology," "Relationship

between man and nature," "Quality of Life," and "Limits to the biosphere." The second and fourth of Jackson's factors partly mirrored Albrecht et al.'s (1982) "Limits to Growth" and "Man Over Nature" factors based on a more limited original NEP scale and on American data.

Kuhn and Jackson's (1989) study replicated Jackson's (1986) analysis based on a more recent, 1986 Edmonton and Calgary survey, which used a truncated (21-item) version of the initial Environmental Attitudes Scale. The results of factor analysis revealed a remarkable consistency with Jackson's original four factors, with the only exception that one item loaded on a different factor. These results, along with satisfactory reliability results (Cronbach's *alpha*), attested to the stability of the new, combined scale as a measure of environmental attitudes.

Environmental attitudes and leisure behaviour

One of the reasons for studying attitudes is to find out how they eventually translate into specific behaviours. Leisure researchers have faced the challenge of identifying the values and attitudes that are relevant for understanding recreation patterns and making successful forecasts (Burton, 1981). Outdoor recreation involves direct contact with the natural environment, and attitudes that are based on direct experience supposedly are more deeply held and are more likely to evoke consistent behavioural responses (Tarrant & Green, 1999) than "nonpersonal" experiences. Thus, the relationship between *outdoor recreation choices* and environmental values and attitudes has attracted research attention.

Dunlap and Heffernan (1975) advanced and empirically tested the following three hypotheses: (1) There is a positive association between participation in outdoor recreation and environmental concern. (2) The association is stronger between appreciative activities and environmental concern than between consumptive activities and environmental concern. (3) There is a stronger association between outdoor recreation and concern for protecting aspects of the environment necessary for pursuing such activities than between outdoor recreation and more "distant" environmental concerns such as air and water pollution.

The analyzed outdoor leisure pursuits involved an "appreciative-consumptive" dichotomy. The first group of activities (camping, hiking, visiting parks) reflects attempts to enjoy the natural environment without altering it. Such activities are thus compatible with the "preservationist" orientation, which attempts to maintain the environment in its natural state. Consumptive activities (hunting, fishing), in contrast, involve taking something from the environment and thus reflect a "utilitarian" orientation toward it (Dunlap & Heffernan, 1975). Eight indicators of

environmental concern measured support for funding for general (e.g., different types of air and water pollution) and more recreation-specific (e.g., protection of forests, natural beauty, or endangered species of wildlife) areas of environmental protection. The data provided weak support for the first hypothesis, but substantially backed the second and third ones. Testing the results for spuriousness (i.e., the possible effect of socio-economic characteristics), confirmed the original findings.

The validity of Dunlap and Heffernan's findings was challenged by subsequent studies by Geisler, Martinson, & Wilkening (1977) and Pinhey & Grimes (1979), which tested the first and second of the listed hypotheses. The first group of authors used extended measurements of both recreation and environmental concern variables. A third, "abusive" type of recreation, which may result in severe environmental degradation (e.g., snowmobiling), was introduced into the comparison of different forms of outdoor leisure, and environmental concern was measured by a quite extensive scale, which embraced two major themes: "awareness of environmental problems" and "support for public action." The second study, in contrast, used highly specific and restricted measure of environmental concern, namely, valuing natural marsh areas.

The data provided either weak or inconsistent support for the tested hypotheses. Furthermore, testing of the relationships for spuriousness revealed that the relative effects of outdoor recreation on environmental concern were very small. As a result, Geisler et al. questioned the generalizability of the links emerged in Dunlap and Heffernan's study and concluded that "at most it can only be said that particular forms of outdoor recreation are related to particular environmental concerns at particular times and places" (p. 248).

The conviction that these weak results were caused by poor measures of outdoor recreation and environmental attitudes prompted Van Liere and Noe (1981) to reexamine the first two of Dunlap and Heffernan's hypotheses, based on an improved measurement instrument. The important feature of this study was using the 12-item NEP scale to measure *general environmental orientation*, rather than concern about specific problems. According to the authors, "measuring this broader 'world-view' is important because it is exactly these beliefs (such as 'the balance of nature is delicate and easily upset') which participation in outdoor recreation is purported to arouse and cause to be internalized (and ultimately generalized to concern about specific problems)" (p. 509). The outdoor activities analyzed in the study involved an "extended" appreciative-consumptive-abusive range.

Contrary to expectations, the emerged associations were still weak. Given that the relationships were not spurious, Van Liere and Noe concluded that the possibility of the relationship between outdoor recreation participation and environmental attitudes should not be rejected. They suggested that "it is possible that ... other improvements in measurement or study design will lead to higher levels of associations" (p. 511). Also, the linkages between the variables could be more complex than assumed in existing research. For example, the available studies failed to take into account the interpretation given to the recreational experience (the possibility that the same activity may take on different meanings for different individuals) and that social factors such as social organization of recreation will affect recreational choices. Therefore, Van Liere and Noe argued that, rather than being abandoned, research on environmental attitudes and outdoor recreation should focus "on specifying more complex models linking these two variables" (p. 511).

Finally, Jackson in his Alberta study collected and evaluated "new empirical evidence for relationships between participation in outdoor recreation and attitudes to the environment" by testing the second and third hypotheses originally advanced by Dunlap and Heffernan (1975) (Jackson, 1986, p. 9). He addressed measurement and analytical shortcomings of preceding studies namely, poor, overly specific measures of environmental attitudes, assessment of the relationship between attitude items and recreation on a one-to-one basis, and analysis of the attitudes of participants versus non-participants in a single activity (which represents a very high level of averaging among the latter group).

In order to attain as comprehensive measure of underlying values and attitudes to nature as possible, a new *Environmental Attitudes Scale* was compiled (see the foregoing sub-section on measurement). In addition, the *Recreation Attitudes Scale* based on items developed by Knopp and Tyger (1973) was used to obtain recreation-specific measures of environmental attitudes for testing the third Dunlap and Heffernan's hypothesis.

Unlike previous studies, Jackson applied two classification methods to derive general "attitudinal profiles" of respondents for the data analysis. First, they were divided into 4 groups based on their total scale score ("ecocentrists," "moderate ecocentrists," "moderate technocentrists," and "technocentrists"). Second, the 4 dimensions of environmental attitudes were obtained using factor analysis (see the preceding sub-section). The results of the analyses based on paired comparisons (participants in one activity with participants in another activity) supported the hypotheses of the study: people who prefer appreciative activities hold significantly

more pro-environmental attitudes than those who prefer mechanized or consumptive pursuits; and outdoor recreation participation is more strongly related to attitudes towards specific aspects of the environment necessary for pursuing such activities than to attitudes towards more "distant" environmental issues. An important extension of previous research was the finding that attitudinal dimensions are not "equal" in their associations with outdoor recreation. The views on the quality of life and the man-nature relationship were the best discriminators among people who prefer different recreational activities.

Jackson concluded that his results cast doubt on Geisler et al.'s (1977) conclusion that outdoor recreation participation is related to environmental attitudes only at particular times and places. Nevertheless, further replication of the study elsewhere would be useful.

Discussing his results, he explained modest (although larger than those reported in preceding studies) correlation coefficients by the variety and complexity of variables known to influence recreation behaviour. "No single variable, or even a set of similar variables, should be expected to explain a higher proportion of variance than in the present study" (Jackson, 1986, p. 19). With regard to the second of the tested hypotheses, he referred to Van Liere and Noé's (1981) critical comment that, "although the relationships may be stronger for specific measures of attitudes associated with outdoor recreation, they do not necessarily improve our understanding of the basic issue first raised by Dunlap and Heffernan (1975), namely, of how outdoor recreation is related to the development of a general pro-environmental orientation" (Jackson, 1986, p. 20).

Jackson also expressed concern regarding the presumed direction of the linkages under question, pointing out that, although in his and in all previous studies, outdoor recreation has been assumed to be the independent variable while attitudes were the dependent variables, this implicit assumption might be not the most appropriate one. He noted that "while feedbacks between variables are obviously involved ... people choose recreational activities which are consistent with their basic outlook on resources, the environment and the quality of life" (p. 20).

Finally, amongst suggestions for future research he noted that it would be beneficial to assess links between environmental attitudes and recreational activities beyond limited sets of outdoor pursuits considered so far, including "other examples of appreciative, mechanized, and consumptive activities," "other outdoor activities which do not fit easily into these categories," and "to the entire range of outdoor recreation and indoor leisure pursuits" (p. 21).

In summary, literature on attitudes and behaviour (including sources on environmental attitudes and recreation) emphasizes three major reasons why attitudes may not predict behaviour:

lack of congruence or specificity between the attitude and behavioural measures, attitude measurement, and the effect of external factors and situational conditions (such as opportunities to perform the behaviour) on attitude-behaviour relationship (Tarrant & Cordell, 1997; Tarrant & Green, 1999). The present study addresses the concerns outlined in previous research and explores new approaches to the examination of the relationship between environmental attitudes and leisure behaviour. The resulting contribution to the development of knowledge is outlined in the following, concluding sub-section.

Issues addressed in the present study and its contribution to existing knowledge

The portion of the study involving environmental attitudes contributes to knowledge in the field of leisure research in the following major ways.

(1) As in the other sections of this study, the issue of discrepancy between a complex character of leisure behaviour and fragmented, specialized fields of leisure research is addressed. Considering concerns expressed in the leisure literature that the relationship between environmental attitudes and leisure patterns is most likely far from being straightforward and direct, but may represent a complex interaction of many factors, the study reexamines the relationship under question by putting these variables in a broader conceptual and theoretical context than was done before. Given that the same leisure activity may take on different meanings for different people (different individuals might have different reasons to be engaged in the activity) (Van Liere and Noe, 1981), it is hypothesized that *environmental attitudes-leisure participation link may be affected by anticipated leisure benefits*. (The latter variable has been chosen for its very "rich conceptual context" reflecting multiple leisure meanings, which can be rooted in personality traits and past leisure experiences of individuals). Furthermore, other motivational variables also are considered alongside anticipated leisure benefits, as well as a potential role of leisure constraints in the environmental attitudes-participation link. Based on the findings, a model linking environmental attitudes with other variables in a more complicated way than has been formerly assumed is proposed. This model offers new theoretical explanations to leisure choice involving environmental attitudes and casts new light on the results of previous studies (including an explanation of a tenuous link between environmental attitudes and leisure participation).

(2) In the process of retesting Dunlap and Heffernan's (1975) original propositions (in order to establish a connection with previous research) some important conceptual and methodological

concerns raised in preceding studies have been addressed. First, the original hypotheses were reformulated: environmental attitudes were assigned an antecedent status in the attitudes-leisure behaviour causal sequence (although the possibility of feedbacks was not excluded) (Jackson, 1986). Second, it has been hypothesized based on Jackson's (1986) remark that variations in environmental concern may be reflected in leisure other than outdoor recreation. Accordingly, the conceptual base of the study was broadened by extending the range of considered activities to a large variety of outdoor, indoor, social and sport-related activities.

(3) The problem of choosing a method to measure environmental attitudes deserves special mention, taking into account the variety of opinions expressed in the leisure and non-leisure literature regarding the desirable degree of specificity or generality in attitude measurement. It has been empirically demonstrated that specific measurements of attitudes (including environmental attitudes; Jackson, 1986) can enhance correlations with specific behaviours. Attitude theory also suggests that global attitudes are normally poor predictors of specific behaviours. The theory of reasoned action (Ajzen & Fishbein, 1980; Fishbein and Ajzen, 1975) provides explanation of this weak link by suggesting that "overt" behaviour is related to attitudes not directly, but through "behavioural intentions." The latter "are viewed as the immediate antecedents of corresponding overt behaviors" (Fishbein & Ajzen, 1975, p. 382). Thus, behavioural intentions may be more predictive of pro-environmental attitudes than actual behaviour (Karp, 1996), and measuring attitude toward a behaviour and behavioural intention seems reasonable for predicting specific behaviours (Schuman & Johnson, 1976).

However, leisure research is more concerned about "*real*" *leisure behaviour* in relation to different values and beliefs than in intentions to pursue certain activities. Moreover, because researchers often are concerned with predicting behavior across a range of situations, understanding the attitude-behavior relationship at the general (rather than specific) level may have the greatest utility (Tarrant & Cordell, 1997). Finally, while "situationally specific" models illuminate the attitude-behaviour links, they do not link the fairly specific environmental attitudes and beliefs they measure to broader worldviews and values (Stern, Dietz, & Guagnano, 1995). General attitudes are supposed to have more direct links with *values* compared to attitudes and beliefs evolving around specific environmental issues (Figure 2.2).

The controversial measurement issue (specific versus general measures) was resolved in this study in favour of *general* measures of attitudes. This research is consistent with the assumption that the "fundamental convictions" expressed in general environmental concern (not only opinions

regarding specific issues) can have distinct behavioural implications. Indeed, people may hold beliefs about the consequences of specific environmental conditions, such as chemical contamination of water supplies, in the context of more general beliefs about environmental problems. According to Stern, et al. (1995) "in many situations, including responding to a survey, people use cognitive processes that ignore details and problem-specific information. Instead, they classify a topic and make a reference to general beliefs and values in responding and filtering information. Thus beliefs about specific problems are formed in large part by reference to more general beliefs" (p. 729).

In this context, a decision was made to adopt Jackson's Environmental Attitudes Scale (EAS) as a measurement tool reflecting general attitudes toward the environment and related issues. Being more representative than the most frequently used NEP scale, the EAS covers a broad variety of general attitudes to nature, technology and the quality of life and also is proven to have an acceptable reliability (Jackson, 1986; Kuhn & Jackson, 1989).

To deal with the problems associated with adopting a general measurement of attitudes, some methodological adjustments were introduced into the analyses, which were carried out differently from previous studies. Based on Jackson's experience of deriving "attitudinal profiles" and providing that general attitudinal measures were found to be better predictors of general behaviours than of specific actions (Tarrant & Cordell, 1997; Tarrant & Green, 1999), alternative classification methods (factor and cluster analyses) were applied to create generalized variables of both environmental attitudes and leisure behaviour. Unlike preceding studies, which focused on individual (global or specific) attitudinal items and specific recreation activities, the new generalized measurements were "attitudinal profiles" and participation types or styles. Using them in statistical tests provided the necessary "generalization congruence" among attitudinal and behavioural measures and, thereby, addressed the concern about correspondence between attitude and behavioural measures expressed in previous studies.

Leisure Constraints and Constraints Negotiation

Leisure constraints and their negotiation: Concepts and research relevant to this study

Investigation of leisure constraints is one of the key areas in leisure research focusing on the "negative" or "problematic" side of leisure behaviour. While it is important to determine what inspires and motivates people to participate in leisure activities, it is equally important to uncover deterrents to leisure involvement and enjoyment. Understanding leisure inhibitors and the ways

they affect the process of leisure decision-making is crucial for a fuller appreciation of leisure behaviour (which, according to Jackson & Scott (1999), is one of the main goals of leisure research. Besides obvious scientific merits, such understanding is important for practical reasons. In order to know what services to offer and under what circumstances people would use them, practitioners should be aware of potential leisure deterrents and the ways they affect different subpopulations, and be able to determine strategies for eliminating constraints which prevent people from engaging in satisfying leisure experiences. Moreover, as demonstrated in this and other sections of the chapter, exploring the nature of leisure constraints may cast new light on other domains of leisure, such as perceived leisure benefits and motivations, and may contribute to consolidation of discrete areas of leisure research, and hence, to better understanding of the leisure decision making process in general.

North American leisure constraints research emerged "as a new topical theme" in the 1980s (Jackson & Scott, 1999) and has passed through a series of pivotal developmental stages. A *constraint to leisure* can be defined as "any factor which precludes or limits an individual's frequency, intensity, duration or quality of participation in recreation activities" (Ellis & Rademacher, 1986, p. 33; quoted in Edginton, Jordan, DeGraaf, & Edginton, 1998, p. 24). "Constraints include obstacles, limitations, impediments, restrictions, and other factors placed in front of individuals either by themselves or by culture, society, or environment. These constraints prevent people from engaging in satisfying leisure experiences" (Edginton et al., 1998, p. 24). This now conventional term was initially featured in the leisure literature around the mid-1980s (e.g., McGuire, 1984; Wade, 1985), succeeding the term "barriers to recreation participation." Jackson and Scott (1999, p. 300) maintain that this change was much more than a semantic one and marked fundamental shifts "in focus and conceptualization." As Jackson (1988, p. 203) noted, the word "barriers" fails to capture the entire range of explanations of constrained leisure, compared to the "more generic and comprehensive" term "constraints." Indeed, the term "barrier" reflects some kind of "external" obstacle and usually was used to emphasize only one type of impediment that intervenes between preference and participation. The concept of constraint is inclusive and extends into "internal," psychological areas, such as formation of preference and satisfaction. Being more "experience-oriented," the concept of constraints better suits the experience approach to leisure studies.

The early (largely explorative and empirical) stage of constraints research was marked by focusing on constraints to *participation*. The underlying assumptions were that constraints

interfere between (already formed) leisure preferences and participation ("intervening" constraints), that there is a *negative* link between experienced constraints and participation, and that constraints are insurmountable obstacles to participation resulting in nonparticipation (people who engage in leisure were assumed to be constraint-free). These initial assumptions have been challenged and proved to be false by a series of pivotal studies, which marked a shift toward an alternative, "negotiation-based" conceptualization of constraints and also advancing into a new, theory-building "era" in leisure constraints research.

Crawford and Godbey (1987) were the first to question the dominant proposition that constraints interfere solely between preference and participation. In their theoretical paper they argued that constraints can be understood only within the broad context of the preference-participation relationship and categorized constraints into three categories according to the way they affect this relationship: intrapersonal, interpersonal, and structural. Their conceptual model maintains that intrapersonal constraints involve "individual psychological states and attributes" (p. 122), which interact with leisure preferences rather than intervening between preferences and participation. According to Scott (1991), this type of constraint exists "when individuals, as a result of personality needs, prior socialization, abilities, and perceived reference group attitudes, fail to develop leisure preferences. That is, these factors predispose people to define leisure objects ... as appropriate or inappropriate, interesting or uninteresting, available or unavailable, knowledgeable or ignorant, and so on" (p. 324). Interpersonal constraints emanate from social interaction with family or friends, and others, and can affect both preferences and participation. Finally, structural constraints (e.g., financial resources, time shortages, availability of opportunity) were defined as intervening factors between leisure preference and participation.

A valuable theoretical contribution of Crawford and Godbey's study was the idea that constraints not only interfere with participation in a desired activity, but can also affect other aspects of leisure. Moreover, they questioned the "absolute" nature of constraints by arguing that (structural) "barriers" are influences upon, not determinants of, leisure behaviour (Jackson and Searle's [1985] distinction between "blocking" and "inhibiting" constraints may be viewed as an elaboration of this idea). Their model was further developed by Crawford, Jackson and Godbey (1991) who located constraints within a hierarchical decision making process. According to their "hierarchy of importance" proposition, constraints are encountered in a sequential manner, starting from the most proximal (intrapersonal) through intermediate (interpersonal) to the most distal (structural). It follows from this proposition that intrapersonal constraints are the most powerful of

the three types, because they can affect leisure preferences, while structural constraints, as the most distal, are the least powerful. An important contribution of this study to the conceptual and theoretical development of leisure constraints research was introduction of the concept of constraints *negotiation* and therefore, rejection of the previously dominated idea about their "static" (insurmountable) character. According to Crawford et al., participation depends upon the successful confrontation of each constraint level in turn. The process begins with intrapersonal constraints in the development of leisure preferences, which are formed when intrapersonal constraints have been negotiated or are not present. It progresses through the sequential negotiation of interpersonal and structural constraints in order to attain participation. Each stage of the process may result in nonparticipation, depending on the strength of perceived constraints and personal "negotiation potential."

While Crawford and his colleagues developed an orderly and complex model of leisure constraints operation, similar ideas have been emerging (implicitly and explicitly) in leisure research community. For example, Iso-Ahola and Mannell (1985) offered conceptual categories of leisure constraints ("social-personal," "social-cultural," and "physical") resembling those proposed by Crawford and Godbey. Henderson, Stalnaker, and Taylor (1988) proposed a similar concept of "antecedent" and "intervening" constraints. Likewise, the ideas of "substitutability" of one leisure pursuit for another implicitly involved the notion of possibility of negotiation in case some obstacles to leisure occurred and of potential negotiation strategies (see below). For example, Tinsley and Kass (1978) noted that leisure activities may be somewhat interchangeable in terms of their (similar) "need-satisfier dimensions." Ditton, Goodale, and Johnsen (1975) referred to the possibility of substitution among activities within different "recreation types," which can be established by means of cluster analysis. Finally, Iso-Ahola (1986) has suggested a "theory of substitutability" to explain how individuals make decisions on substituted leisure behaviour.

Largely speculative Crawford et al.'s hierarchical process model has received empirical support in research conducted at the time of and after its publication. First, Raymore, Godbey, Crawford and Von Eye (1993), in a study of leisure constraints among adolescents, confirmed that intrapersonal, interpersonal and structural constraints indeed formed three distinct categories and existed in a hierarchy. Second, Shaw, Bonen and McCabe (1991; Canadian study) and Kay and Jackson (1991; British study) found that the reported constraints "do not necessarily mean less leisure." Leisure participation did not appear to be negatively linked to the experience of constraints; on the contrary, in some cases a positive relationship emerged. These somewhat

"paradoxical" results (from the point of initial "simplistic" conceptualization of constraints as merely blockers or inhibitors of participation) indirectly supported the negotiation interpretation of leisure constraints and prompted further interest in this line of reasoning and research. Kay and Jackson (1991) concluded that leisure participation may occur "despite" constraint, or in other words, through negotiation, and offered examples and ranks of negotiation strategies ("methods of dealing with constraints") used to surmount financial constraints. Shaw et al.'s (1991) study revealed that constraints of an antecedent (such as low energy or lack of self discipline) rather than intervening (structural) nature were negatively associated with participation levels, confirming thereby, Crawford et al.'s assumption that the first type of constraint may have a more powerful effect on leisure compared to other leisure impediments.

Recent research by Alexandris and Carroll (1997) and Carroll and Alexandris (1997) has addressed the main limitations of Shaw et al.'s and Kay and Jackson's studies, namely the item by item data analysis and limited number of constraints tested, in a study of sport recreation participation in Greece. Congruent with Crawford et al.'s ideas, they reported a negative association between (the most powerful) intrapersonal constraints (individual/psychological, lack of interest, and lack of knowledge) and sport participation, while no significant relationships were discovered in the case of structural and interpersonal constraints, except for the time dimension (Carroll & Alexandris, 1997). The latter exception, however, is at variance with previous empirical findings. These results point to the importance of conducting cross-cultural and cross-regional studies to verify and compare inferences.

Based on the empirical evidence, including studies of Shaw et al. (1991) and Kay and Jackson (1991), and on the hierarchical model of constraints, Jackson, Crawford and Godbey (1993) further articulated and summarized the negotiation perspective on leisure constraints and introduced a number of propositions, including the "negotiation" and "balance" propositions.

(1) The first and central negotiation proposition postulates: "Participation is dependent not on the absence of constraints (although this may be true for some people) but on negotiation through them. Such negotiation may modify rather than foreclose participation" (p. 4). The subsequent postulates (pp. 6 - 8) can be considered as extensions to this proposition and are as follows: (2) Variation in the reporting of constraints can be viewed not only as variations in the experience of constraints but also as variations in success in negotiating them; (3) Absence of the desire to change current leisure behaviour may be explained partly by prior successful negotiation of structural constraints; (4) Anticipation of one or more insurmountable interpersonal or structural

constraints may suppress the desire for participation; (5) Anticipation consists not simply of the expectation of the presence or intensity of a constraint but also of the anticipation of the ability to negotiate it. (6) The last, "balance," proposition brings leisure motivation into the equation and declares that: "Both the initiation and outcome of the negotiation process are dependent on the relative strength of, and interactions between, constraints on participating in an activity and motivations for such participation" (p. 9).

Overall, Jackson et al.'s (1993) model presents the process of constraints negotiation in a more complex manner than the original (Crawford et al.'s 1991) hierarchical model. Jackson et al. proposed not only that constraints are encountered in a linear, sequential fashion, but that there is interaction among constraints categories through the process of negotiation, and that feedback loops occur. Henderson and Bialeschki (1993) in their explorative qualitative research of women's leisure constraints further challenged the linearity of the original negotiation models. Their "expanded model of leisure constraints" suggests that constraints are "rather dynamic and integrated" and interact simultaneously with each other. However, further empirical research is needed to explore and validate the original and alternative theoretical constructs on the constraints negotiation process.

Viewing leisure constraints as negotiable spurred interest in examining how people try to go around them, or in *negotiation strategies*. This novel topic attracted both quantitative and qualitative research, which represented a useful combination of alternative approaches. Kay and Jackson (1991), for example, identified two "sets" of negotiation strategies related to time and financial constraints. The first set involved cutting down on leisure or work and curtailing time spent on household chores; the second included reducing leisure participation, saving up to participate, finding the cheapest opportunity, or making other economies.

Qualitative studies represent a useful source of information on constraints and negotiation strategies, as defined by people themselves. Henderson, Bedini, Hecht, and Schuler (1995), in a study of women with physical disabilities, confirmed Jackson et al.'s conceptual categorization of general responses to leisure constraints by identifying three major groups of "responders:" "passive responders" or non-negotiators; "achievers," who did not reduce or alter participation; and "attempters," who participated in an altered manner. Modification of preferences or of participation (changing activities) were among the adopted negotiation strategies. Samdahl and Jekubovich (1997) reported making time for self, coordinating time with others (through scheduling), and compromising on activity to be the ways that people structured their lives "to

create space for leisure." Jackson and Rucks (1995) combined qualitative and quantitative methods to explore the negotiation of leisure constraints confronted by adolescents. Negotiation strategies reported by respondents were classified into "cognitive" and "behavioural," and the latter were broken into modifications of leisure and of nonleisure.

In summary, although different ways of responding to constraints have been identified and described, relatively little is still known about the *nature* of the negotiation process. Much remains to be done in the area of *explaining* the negotiation of leisure constraints (Jackson & Scott, 1999). Most of the Crawford et al.'s (1991) and Jackson et al.'s (1993) propositions have received little empirical verification so far, suggesting that the relationship between perception of constraints and participation is a complex one, and needs further investigation.

Association of leisure constraints and their negotiation with other aspects of leisure

In order to understand how constraints interfere in the leisure decision-making process, it is necessary to uncover their connection to other aspects of leisure including type of activity participation, perceived leisure benefits, motivations, and satisfactions. Examination of the links with other leisure-related variables is imperative for leisure constraints research to "fulfill" its task as a potential consolidator of otherwise discrete domains of leisure studies and thereby contribute to building a better integrated and complete body of knowledge on leisure behaviour.

Leisure constraints and activity participation: Given that the initial focus of constraints research was on leisure participation (or put more precisely, non-participation), a number of studies have attempted to analyse how perception of constraints differed depending on different types of desired leisure activities. Jackson and Scott (1999), in their review of leisure constraints studies, refer to a "small body of research" which had been focused on the comparison of constraints across various activities (e.g., Jackson, 1983, 1993; 1994; McCarville & Smale, 1993). The results of these studies were twofold. On the one hand, they confirmed activity-based variations in constraints. For example, Jackson (1983) concluded that "differences occur in the perceived importance of barriers to participation, depending on the type of activity desired" (p. 58). Jackson (1993) reported that high scores on the frequently reported financial constraints were particularly associated with downhill skiing, golf and resource-based activities, whereas problems of social isolation most affected "would-be participants" in team sports, but were less of a problem for swimming, golf, and downhill skiing. On the other hand, the variations were typically ones more of intensity or strength than of kind: people appeared to experience a basic core of

constraints regardless of their activity preferences (Jackson & Scott, 1999). For instance, costs and time commitments emerged as the most frequently reported constraints in the majority of studies, followed by the problems with facilities. Jackson (1983) concluded that combinations of "barriers" best characterized and discriminated between types of activity, suggesting a multidimensional nature of leisure constraints.

Jackson and Scott (1999) warned, however, against overgeneralizing the findings derived from research on one type of activity to other types without thorough empirical knowledge. The latter is necessary both for better understanding the behaviour related to constrained leisure and for practical efforts to alleviate leisure constraints.

Leisure constraints and other aspects of constrained leisure: Since research on constraints initially adopted a somewhat "one-sided" approach to the subject by concentrating on structural (intervening) constraints, the main criterion variable against which constraints were investigated was either nonparticipation or the desire (but inability) to participate in leisure. As shown earlier, empirical evidence suggested that this type of criterion variable used to assess the impact of constraints turned out to be inappropriate. However, a parallel theme in the constraints literature since the late 1980s has focused on what Jackson and Scott (1999) call the "heterogeneity" issue. This research used an extended range of criterion variables, such as the desire but inability to participate in a new activity, ceasing participation in a former pursuit, the inability to participate as frequently as desired, and negative impacts on the quality of leisure experience. Some scholars have questioned whether the arrays of constraints associated with these "distinct indicators of the general concept" (Jackson & Dunn, 1991, p. 167) are similar or different (or whether constrained leisure is internally homogeneous or heterogeneous).

The heterogeneity issue was first explored by Jackson and Dunn (1991) who found that reasons for ceasing participation differed significantly from barriers to participation in a desired activity. (While the cost of equipment was more frequently identified as a deterrent to starting an activity, physical inability was more frequently identified as a reason for ceasing participation). Similar findings have been reported by Hultsman (1993) and Jackson and Rucks (1993).

Overall, the results of heterogeneity studies bear resemblance to the activity-specific ones. Jackson and Scott (1999) summarize the major findings as follows: "While there is a common core of constraints that tends to emerge regardless of the criterion variable chosen, the relative strength and importance of items and dimensions vary sufficiently among criterion variables.... This finding implies that ... researchers must be very careful when designing research and choosing the criterion

variable against which to measure the impact of constraints, and preferably should select two or more such variables for inclusion in a single study" (p. 305).

Interaction between constraints and motivation: As mentioned earlier, many of Crawford et al.'s (1991) and Jackson et al.'s (1993) propositions regarding the nature of leisure constraints and negotiation process still need empirical verification. Carroll and Alexandris (1997) in a study of constraints experienced by sport participants in Greece addressed this need by looking into Jackson et al.'s general "balance" proposition and examining the relationship between perception of constraints and strength of leisure motivation.

Strength of motivation was measured using a modified version of Beard and Ragheb's (1981) scale and included the following items assessed based on a 4 point Likert scale ("true"- "never true"): "I regret when I am unable to participate in recreational sporting activities;" "Even when participation is inconvenient I still try to participate;" "I feel that participation in recreational sports is vitally important to me;" "I am really interested in participating in particular recreational sporting activities;" and "I feel that spending time for recreational sports is more worthwhile than spending time for other leisure activities" (p. 287). Measurement of constraints was similar to the method utilized in the present study (see the following sub-section).

The strength of motivations for sport participation was found to be significantly and negatively related to the perceptions of constraints as a whole, and positively associated with sport participation. The authors offered two alternative explanations for the findings. First, there is a possibility that more motivated individuals are less likely to perceive high levels of constraints or are able to overcome them more readily, and hence, are more likely to participate in sport than the less motivated ones. An alternative explanation was that those who perceive the highest level of constraints become less motivated. Carroll and Alexandris suggested that the level of motivation is affected by the perceived level of constraints. The authors concluded that "it is likely that there is a dynamic relationship between motivations and perceived constraints and each is influenced by the other" (p. 295). The major outcome from this work was "tentative" empirical support of Jackson et al.'s proposition that motivational factors may interact with the perception of constraints, and that participation (as an outcome of constraints negotiation) might be affected by the relative strength of motivation in relation to the perceived constraints.

Specific results from this study are also worth noting, namely, that the dimensions of constraints in the intrapersonal category had the strongest negative correlation with motivation, along with negative association with sport participation. This confirms Crawford et al.'s

assumption that intrapersonal constraints may be the most powerful ones. Because of their possible negative effect on leisure motivation they can be especially difficult to negotiate.

Constraints negotiation strategies and other aspects of leisure behaviour: Jackson and Rucks's (1995) examination of how constraints and negotiation strategies vary consistently with activity participation, and the extent to which types of negotiation strategies are associated with the type of constraint experienced, contributed "to the development of a preliminary but composite picture of the constraints negotiation process" (p. 86). While activity-based variations were not significant, an important discovery was that in spite of a general consistency of negotiation strategies with the types of constraints encountered, the choice of strategy cannot always be predicted merely by knowing the type of constraint: "Most people who experienced a problem with time and commitments, for example, choose to negotiate this class of constraint by modifying their use of time; similarly, the problem of lack of skills is most often tackled by acquiring those skills. There were, however, some important and innovative exceptions. For instance, time constraints or lack of skills might be dealt with by modifying leisure aspirations or finding new partners" (pp. 103-104).

In summary, it is clear from the available leisure literature that the recent and complex concept of leisure constraints as negotiable still needs much empirical exploration and verification. Also, in spite of the attempts to connect constraints and their negotiation to other domains of leisure experience (and contribute to the "process" view of leisure behaviour related to constraints), this goal is far from being accomplished.

Measurement and classification of leisure constraints

One of the accomplishments of the traditional, "pre-negotiation," studies of leisure constraints was the identification of individual constraints, their measurement, and classification. The last represented a step forward from the item-by-item analyses towards identifying patterns and regularities in the data and thereby promoting theoretical understanding of the subject.

Jackson and Scott (1999) note that initially short, simple lists of a few "barriers" were compiled and administered in essentially quantitative, survey-based studies. The measurement focused mostly on structural (intervening) constraints, which presumably inhibited participation. The scales included items such as work and family commitments, costs, problems with facilities, lack of transportation, lack of knowledge, etc. (Jackson, 1983, 1993; Jackson & Dunn, 1991; Searle & Jackson, 1985). There were exceptions, however. McGuire (1984), for example,

developed a comprehensive inventory of 30 constraints affecting older persons. A large portion of the list included obviously intrapersonal constraints, such as "fear of making a mistake," "fear that others would make fun of you," "feeling you were too old to learn the activities," "feeling guilty about doing them," etc. However, the criterion variable used to assess these constraints ("limiting leisure involvement") was still of a somewhat "narrow," structural nature.

Jackson and Scott (1999) mention two basic strategies in the measurement and analysis of constraints. In the first type of approach, people were asked about the kinds and intensities of constraints they experience with respect to their leisure in general. The other approach focused on specific activities in which respondents would like to participate, are already participating, or have ceased participating. These studies focused either on constraints associated with a single activity or on constraints examination across a wide range of activities.

Eventually measurement scales began to become more comprehensive (e.g., Raymore et al., 1993), as the conceptual base of constraints broadened and researchers attempted to attain a fuller understanding of the ways in which constraints enter into the leisure decision making process of individuals. Emerging qualitative studies successfully extend and complement this knowledge and contribute to refining of measurement tools. First, during interviews people *themselves* talk about their leisure and define constraints to it (Henderson et al., 1993, 1995; Samdahl & Jekubovich, 1997). The new insights obtained as a result of such "first-hand" information further contribute to the empirical definition of constraints and add new items (which otherwise might have been overlooked) to the existing inventories. Second, qualitative research can be a tool of verification for already existing survey scales. For example, Jackson and Rucks (1995) asked open-ended questions about "the problems" experienced in activity participation by adolescents and ended up with a list of 100 very specific constraint items. These items comprised 7 general categories that proved to be very close to the conventionally used measurement sub-scales, such as commitments and time, lack of skills, and problems with interpersonal relations.

Empirical classifications of constraints have been accomplished largely by means of factor analysis, producing distinctive dimensions. Comparison of the results allowed the detection of similarities and differences between studies, and thereby helped establish consistencies and generalizations about the impacts of constraints on leisure behaviour (Jackson & Scott, 1999). Despite inevitable variations in the results obtained from different databases, several common dimensions have emerged (Backman, 1991; Jackson, 1993; Jackson & Henderson, 1995; McGuire, 1984; Wright & Goodale, 1991), including time commitments, costs, facilities and

opportunities, skills and abilities, and transportation and access. Usually time or costs-related constraints emerge as the most intensely experienced, followed by facilities. "This degree of commonality in results suggests that there is a stable and meaningful core of leisure constraints regardless of the specific circumstances of a particular study or the nature of the sample" (Jackson & Scott, 1999, p. 304). Consistent patterns obtained as a result of many studies provide a gauge for new studies to establish credibility of their results: the number of constraint dimensions, the items they contain, and their relative ranking.

Alternative classification methods to group and examine constraints (and other leisure-related variables) include cluster analysis, which makes it possible to segregate groups of *people* who share similar attributes in terms of experienced constraints. This classification provides different insights into the data, compared to the dimensions of *items* resulting from factor analysis. These insights can be instrumental in the understanding of leisure constraints operation, taking into account their likely multidimensional nature (Jackson, 1983). People may be affected not only by a single type of constraint, but may experience *combinations* of different leisure inhibitors that cut across the dimensions (Jackson, 1993) (see the Introduction and Chapter 6 on leisure constraints).

Measurement strategies of this study

When a survey scale was being compiled for this study to measure constraints, the following matters were kept in mind. First, it should combine reasonable versatility with being concise enough to fit an extensive questionnaire covering many facets of leisure. Second, it should be designed so that the data could be comparable with previous studies in order to establish its validity. The last requirement was met by including in the scale "standard" items from preceding studies, such as cost-related constraints, time commitments (busy with work/family), lack of knowledge or partners, facilities choice/crowding/upkeeping, etc. As far as the second condition is concerned, while constraints of an interpersonal nature (e.g., having no partners to participate with, or being not at ease in social situations) were usually covered in the previous studies, the *intrapersonal* component was usually underrepresented. Therefore, a number of items reflecting this type of constraint were formulated based on the literature sources and added to the questionnaire (such as "Feel no energy and motivation," "I don't feel safe or secure," and "Consider an activity ... to be not entirely appropriate for my age/gender").

When asking individuals to rate the importance of individual constraints, the questionnaire referred to the latter in a very inclusive and general manner as the "constraints to your leisure and

recreation," in order to capture all possible impacts of constraints. Different criterion variables ("aspects of constrained leisure," such as inability to participate as frequently as desired, the desire but inability to start a new activity, ceasing participation in a former pursuit, and failure to enjoy leisure activities) were measured separately.

Measurement of constraints negotiation strategies was largely an explorative venture. The list of 40 strategies was compiled based on a few literature sources (e.g., Jackson & Rucks, 1995; Henderson et al., 1993, 1995; Hurlbut, 1996), and logical reasoning.

Contribution of the present study to existing knowledge

Generally speaking, leisure constraints can be regarded as a "well researched" field, both empirically and theoretically. However, a close look at the "state of the art" in the field brings us to the conclusion that there is still much to be done with respect to the ultimate goal of leisure studies: understanding leisure behaviour.

According to Jackson and Scott (1999), "Until very recently, most leisure constraints research was highly empirical and guided by few theoretical premises" (p. 313). Recent efforts at theory building (Crawford et al.'s [1991] hierarchical model of leisure constraints and Jackson et al.'s [1993] theory of leisure negotiation) put leisure constraints research on a different level by providing a wealth of propositions and lines of inquiry that can direct research. At the same time these theories are still largely untested. Therefore, in spite of the availability of an extensive body of empirical studies conducted prior to the recent theoretical developments, there is certain "empirical hunger" for new, updated studies verifying and extending current theories. The purpose of this study is to address this need by empirically testing some of the theoretical propositions, as well as posing new questions about leisure constraints operation and their negotiation. An important feature of the study is an attempt to provide *explanations* of the ways constraints affect leisure behaviour and are negotiated (not only to identify and describe negotiation strategies). This objective is closely connected to the second and central goal of this research: utilizing and developing *integrating* properties of the leisure constraints concept by extending links to other aspects of leisure.

The following are brief highlights of more specific tasks and contributions (for more details see Chapter 7 on leisure constraints and Chapter 8 on constraints negotiation):

(1) The study commences with the examination of the cornerstone of the negotiation thesis: the association between experiencing constraints and leisure participation and the proposition that

people participate in leisure "despite constraint" (Chapter 7). Although this association has been examined before, the analyses were confined to specific activities or populations. For example, Carroll and Alexandris (1997) focused on sport participation, Shaw et al. (1991) on physical exercise, Scott (1991) concentrated on a specific activity, contract bridge, and Henderson et al. (1993, 1995) studied women's leisure. The current research provides a more general basis for testing this link (as well as leisure constraints negotiation) by using a "generic" data set. At the same time the "attendant" associations are being examined, such as the ways different types of constraints interfere with participation.

(2) The distinguishing feature of this study is a thorough, multilevel analysis of the interaction between leisure constraints, anticipated benefits and other motivations. While Carroll and Alexandris (1997) confined their analysis to a single measurement of "strength of motivation" specific to sport participation, this study analyzes different types and levels of "motivation." The analyzed variables include a general value placed on leisure, general ("optimistic"/"pessimistic") attitude toward leisure, and individual anticipated leisure benefits, their clusters and dimensions. Following the general outline of the study, which provides systematic analyses of associations between the variables at various levels of generality, constraint variables are also represented at different levels of specificity, starting from variations in their mere presence (experiencing them or not) and their general intensity and concluding with analyses of their aggregations (clusters and dimensions) and specific items. This complex approach to the analysis throughout the thesis allows the uncovering of links which would otherwise be concealed on a very general, or on the contrary, on a very specific level, and consequently, the provision of thorough and in-depth interpretations of the data.

(3) One of the major contributions of the present research to knowledge about leisure behaviour is integrated, multifaceted examination of the *constraints negotiation process* (Chapter 8). This area still remains largely underexplored. The study features a comprehensive measurement and empirical (factor-based) classification of negotiation strategies and proceeds with an examination of the negotiation process in connection with other aspects of leisure (leisure constraints, motivations, benefits and participation). The central questions addressed in the study were: *Why* and *how* do people negotiate through their leisure constraints, and what are the outcomes of their negotiation effort? Similarly to other aspects of leisure, negotiation received a composite measurement, including negotiation potential (initiation and perceived success in negotiation) and individual strategies and their dimensions.

Summary of the Chapter

In this chapter theoretical, methodological, and substantive issues were addressed related to the literature on three major components of the study, namely, anticipated leisure benefits and other aspects of leisure motivation, environmental attitudes, and leisure constraints and their negotiation.

Each section has outlined a conceptual and theoretical base of a particular field of leisure studies, the instruments used to measure these concepts, the state of empirical research, and also the available evidence of associations between the considered area and other aspects of leisure. Each section concluded with a statement of specific contributions of this study with regard to the considered issues. Taken together, these contributions are part of the two overall objectives of the thesis, namely:

- To extend specific knowledge in each area;
- To integrate each area within a broader model or framework.

CHAPTER 3

QUESTIONNAIRE DESIGN AND SURVEY ADMINISTRATION

The data for the study were collected by means of a self-administered household questionnaire survey conducted in several communities in Edmonton, Alberta from April 20 to June 5, 1996. The questionnaire covered a wide range of questions related to people's leisure behaviour and experience, including information about the following main aspects of leisure: (1) leisure participation; (2) anticipated benefits of leisure and other motivational factors; (3) perceived leisure constraints; (4) leisure constraints negotiation; and (5) environmental attitudes. In addition, demographic data were collected. Of the 500 questionnaires delivered to randomly-selected households, 296 usable questionnaires were returned, for a response rate of 59.2%. This chapter outlines the study design and administration.

Questionnaire

The questionnaire contained eighteen questions and was designed in the form of a twelve-page booklet.¹ Insofar as possible, question wording, questionnaire design, and survey administration conformed with Dillman's (1978) recommendations. Following Dillman, the questions at the beginning of the questionnaire were designed to capture the interest of respondents and involved frequencies of participation in individual leisure activities, followed by a request to list favourite leisure pursuits. The least engaging questions concentrating on the demographic characteristics of respondents (such as gender, age, education, and household income) were placed at the end of the booklet. To ensure balanced proportions of male and female respondents, the adult in the household to have the next birthday was asked to complete the questionnaire. The data obtained as a result indicated that females were somewhat overrepresented. They accounted for 60.2% of the sample (or, more precisely, of the 294 out of 296 respondents who specified their gender). The structure of the questionnaire is outlined below, following the sequence of its major themes.

Leisure participation

Leisure participation was measured in terms of frequency of engagement in a wide range of leisure pursuits and in terms of favourite activities. To measure frequency of participation,

¹ A copy of the questionnaire is provided in Appendix A.

respondents were provided with a list of 77 leisure activities and were asked how often they had participated in each of the activities within the past year. A four-point scale determined frequency of participation: 1 = "at least once a week" (frequent participation); 2 = "at least once a month" (moderate participation); 3 = "less than once a month" (infrequent); and 4 = "never in the last year" (nonparticipation).² The second question asked respondents to indicate their three favourite leisure pursuits, starting with the most popular one.

Leisure motivations

In the third question respondents evaluated the perceived importance of 38 anticipated benefits of their leisure participation. This was measured on a four-point scale: 1 = "not important;" 2 = "somewhat important;" 3 = "important;" and 4 = "very important." The statements were developed using the Recreation Experience Preference (REP) scales created by Driver and associates and the Paragraphs About Leisure (PAL) scale by Tinsley and his corroborators (see Chapter 2), as well as statements used in the Alberta Tourism, Parks and Recreation 1992 survey of recreation activities of Albertans. Also, Iso-Ahola's (1989) major groups of "intrinsic rewards" of leisure (sense of autonomy, mastery and competence, and social interaction), as well as the "seeking" and "escaping" leisure dimensions were taken into consideration as a general reference for balancing the measurement scale.

The list of benefits was followed by another "motivational" question regarding the importance for the respondents of having a certain amount of leisure and recreation time (assessing a value that people place on their leisure). Respondents were asked to select one of the following choices: "not at all important," "somewhat important," "important," and "very important."

Leisure constraints and their negotiation

An extensive portion of the questionnaire was allocated to collecting information about the experience of constraints on leisure and recreation and possible ways of getting around these negative effects on leisure (constraints negotiation).

The section commenced with an "introductory" question (# 5) about how often people managed to engage in desired activities during their leisurely ("free") time ("Never," "Some of the time," "Most of the time," or "Always"). The ensuing questions dealing directly with leisure

² At the later, "analytical" stage of research, these scores were reversed, so that high scores reflected high frequencies of participation.

constraints included:

- The perception of being constrained or not in leisure (a "yes/no" response to the question, "Do you feel that the amount of your leisure time or type of recreation activities that you want to do are constrained [restricted or inhibited] in any way?");
- Main aspects of constrained leisure ("the ways" the individual's leisure and recreation were constrained), measured by a pool of the following (not mutually exclusive items): "I cannot participate as often as I would like," "There are activities that I would like to start, but can't," "I have stopped doing activities that I did in the past, even though I would still like to do them," and "I do not enjoy activities as much as I might otherwise;"
- A 21-item scale of constraints, evaluated using a 4-part response scale ranging from 1 = "not at all important, to 4 = "very important." The scale was compiled based on the leisure constraints literature and the sources such as the Alberta Recreation Survey by Alberta Tourism, Parks and recreation (1992).

The scale evaluating the importance of leisure constraints was followed by four questions related to their negotiation, including:

- A "yes/no" question designed to distinguish people who attempt to negotiate constraints from those who do not;
- A 40-item list of possible negotiation strategies, to be answered "yes" or "no" depending on whether the respondent had adopted each strategy;
- A question asking survey participants to indicate if there are any other things that they do in order to overcome leisure constraints;
- A 4-level measure of perceived success in overcoming constraints ("not at all successful," "somewhat successful," "mostly successful," and "totally successful").

A comprehensive (40-item) list of negotiation strategies was developed using a number of published and unpublished sources, including Jackson & Rucks's (1995) article, Henderson et al.'s publications (1993, 1995), and Hurlbut's (1996) questionnaire on leisure constraints and their negotiation.

Environmental attitudes

Environmental attitudes were examined using the Environmental Attitudes Scale (Jackson, 1986) to elicit public attitudes and values toward the environment, economic activity, quality of life, and science and technology. This scale was based on previous work by Dunlap and Van Liere

(1978, 1984) and is a combination of the items comprising their New Environmental Paradigm (NEP) and Dominant Social Paradigm (DSP), complemented by additional statements researched by Jackson from the resources and environmental literature. The introductory question (# 13) requested respondents' opinion about each of the 24 statements. The degree of acceptance of each statement was assessed using a five-part scale: 1 = "strongly disagree;" 2 = "disagree;" 3 = "neutral;" 4 = "agree;" 5 = "strongly agree."³

Demographic information

The last part of the instrument (questions 14 through 18) requested information on respondents' gender, age, type of household, level of education, and household income. Question 14 inquired about respondents' gender and question 15 asked them to indicate their birth year, from which their age could be inferred. Question 16 solicited a general household description, including categories such as "single person," "couple with no children," "single parent family," "couple with children," etc. The last two questions (# 17 and 18) addressed education level and annual household income. Choices for the level of education comprised elementary school, junior high school, senior high school, technical program, college, university, and other. Household income was originally coded in 7 fairly detailed categories, including: less than \$15,000; \$15,001 to \$30,000; \$ 30,001 to \$50,000; and so on up to over \$120,000.

Data Collection

Survey administration and sample methodology

The study was conducted in Edmonton and targeted different segments of the city's middle class population. For this purpose, based on the Statistics Canada 1991 Census data, four neighbourhoods (low-middle-income, middle-income, high-middle-income and high-income) were selected in different parts of the city for survey administration. In total 500 self-administered questionnaires were equally distributed between these four neighbourhoods. The reason that equal portions of questionnaires were delivered in the selected areas (regardless of their population and number of households), was an attempt to reach an adequate representation on each of the income-groups in the sample, rather than to get representative data on the neighbourhoods.

³ For the purposes of aggregation, the raw scores assigned to pro-environmental statements were later reversed so that low scores uniformly represented the pro-environmental point of view.

The survey packages included a copy of the questionnaire, a covering letter, and a postage-paid reply envelope.⁴ Due to financial reasons, the survey was administered in a "drop off - mail back" manner. The packages were dropped in the mail boxes of houses or condominiums during several trips to the surveyed areas in April - May 1996. The respondents were asked in the cover letter to mail completed questionnaires back using the enclosed stamped reply envelope. The prospective respondents were chosen by delivering a survey package to every fourth or third house in the street or avenue (depending on the size of the neighbourhood). Only one side of streets/avenues (usually the even one) was surveyed. In order to achieve even geographic coverage, first the perimeters of the tracts (border streets and avenues, which "framed" the selected neighbourhoods) were covered by the survey. After this, packages were distributed inside the perimeters following internal grids of the streets and avenues.

Approximately three weeks later, a reminder package was delivered to the households which did not complete the survey.⁵ A reminder package contained a reminder letter (Appendix B) and a copy of the questionnaire in case the original copy had been misplaced.

Response rate

The response to the initial questionnaire delivery (the first phase of the survey) amounted to 181 questionnaires, or 36.2% of the originally distributed packages. The second phase generated an additional 120 returned questionnaires. In all, 296 usable questionnaires were received, representing a response rate of 59.2% of the original distribution.

Data Analysis

The data were analyzed using the SPSS computer software package (Releases 6.1, 9.0 and 10.0). Data examination commenced with aggregation of the raw questionnaire data on leisure activity participation, anticipated benefits, environmental attitudes and leisure constraints by means of factor and cluster analyses (Chapter 4). (As far as negotiation strategies are concerned,

⁴ A copy of the covering letter is provided in Appendix B.

⁵ During the first phase of the questionnaire delivery, the enclosed return envelopes were assigned identification numbers for survey administration purposes (in order to check the number off the list when the questionnaire was returned). This administrative procedure was explained in the covering letter accompanying the initial survey package, and potential respondents were assured of complete confidentiality of their responses.

only factor analysis was performed on this particular set of variables, and results are presented and described in Chapter 8). After the data were reduced to manageable units and general patterns were identified, chi-square tests and one-way analyses of variance were used to assess relationships among key variables. During these examinations the data were manipulated to permit analysis at three levels of generalization: (1) specific items; (2) dimensions of items emerging from factor analysis; and (3) sub-groups of the sample identified by performing cluster analysis on respondents' scores on the factor-based dimensions.

For all statistical tests used in this study, the 0.05 level was used to determine the statistical significance of associations between variables.

CHAPTER 4

DATA AGGREGATION AND CLASSIFICATION

Methods of Data Aggregation and Classification

The current chapter describes the process and results of organizing the raw data from the questionnaire into factor and cluster groups. Each of these statistical procedures results in grouping and reduction of raw data into a smaller number of meaningful units. These can be used for subsequent statistical manipulation, and also offer preliminary insights into the data patterns and structure, i.e. they contribute to the initial interpretation of the data.

Reduction of the data is necessary, because analyzing a large number of specific items is laborious and ineffective in revealing patterns and generalities that may exist within the data. Therefore, the initial data set should be aggregated into a smaller number of units which, at the same time, would retain some of the richness of information included in the raw data. The new, reduced, variables can then be used in statistical procedures to reveal and explain linkages among the variables. The patterns resulting upon grouping can be the ones that were expected, thus confirming previous findings and establishing validity of the data, or they may support the author's propositions and hypotheses. They can also be novel and unexpected, thus resulting in new perspectives and contributing, thereby, to the utility of the study.

Factor analysis and cluster analysis: Complementary methods of data reduction and classification

The reasons for selecting a combination of complementary classification methods, factor and cluster analyses, for data aggregation in this study were discussed in the Introduction and in the Background to the Study (Chapters 1 and 2). Previous studies of individual leisure variables, such as leisure constraints (Jackson, 1993), demonstrated that each of these classification techniques reveals distinctive perspectives and patterns in the data. Therefore, their combination allows more in-depth and multifaceted insights into the complex phenomenon of leisure than, for example, confining data classification only to factor analysis.

Factor analysis and cluster analysis are consecutively applied in this study to a broad range of leisure-related variables: leisure activities, anticipated benefits, constraints, and environmental

attitudes.¹ Factor analysis was applied first, as an intermediate step in data aggregation, because it would be difficult to perform cluster analysis directly on extensive sets of individual items. Factor analysis results in a limited number of dimensions. Cluster analysis based on such dimensions results in cluster sets that are easy to interpret.

Factor analysis is an empirical and relatively objective way to reduce an extensive number of interrelated items belonging to a variable into a smaller number of internally consistent dimensions. This makes the data manageable for subsequent examination. Also, factor analysis represents a useful classification tool for "describing the underlying structure and components of a phenomenon" (Jackson, 1993, p. 145). Bringing out internally cohesive dimensions of closely related items within each variable may "assist in the recognition of patterns and generalities that may be obscured at a higher level of detail" (Jackson, 1988, p. 206), and hence, contribute to initial conceptualization prior to identifying linkages among the leisure variables.

The limitation of factor analysis is its "fragmented" character. It "separates items into discrete groups with high intra-factor ... but low ... interfactor correlations, and each dimension must be analyzed separately" (Jackson, 1993, p. 132). While factor analysis identifies similar types of items, it does not necessarily follow that it classifies similar groups of *people* who share common participation styles and experiences. It is reasonable to assume that people normally do not get involved only in one leisure activity, or even one type of activity. Similarly, they probably do not experience in real life only one type of leisure benefits or constraints. Cluster analysis may assist in addressing this analytical shortcoming by revealing more complex, cross-dimensional behavioural profiles, discriminating not among groups of items, but among *groups of people*.

People belonging to the same cluster share certain common characteristics. They may be amalgamated by participation in a combination of leisure activities, anticipate a distinctive combination of benefits from leisure participation, or encounter a specific array of constraints in fulfilling their leisure aspirations (Jackson, 1993). Therefore, cluster analysis makes it possible to attain more complex insights into leisure behaviour, bringing us closer to the concept of *leisure styles*. The major limitation of cluster analysis is the element of subjectivity in selecting the most appropriate cluster solution (Aldenderfer & Blashfield, 1984). There are a number of ways to address this problem, which are discussed below.

¹ Classification of the fifth major variable considered in this study, constraints negotiation strategies, was confined to factor analysis and carried out in the last analysis chapter of the study (Chapter 8), which concentrates on their associations with other leisure-related variables.

The sequence and criteria of analyses

Factor analysis: Factor analysis was applied as a first step in data aggregation. The resulting dimensions provided a basis for cluster analysis. The analyses of leisure activities, anticipated benefits, constraints and environmental attitudes was accomplished by using SPSS for Windows, Release 6.1.3., SPSS Inc., 1989-1995). The initial factors were subjected to Varimax rotation.

Factor analysis of the original sets of questionnaire items was undertaken in the following steps. First, analysis with an unspecified (not predetermined or forced) number of factors was run and the resulting initial set of factors reviewed. Then (if necessary) analyses were repeated with predetermined (imposed) numbers of factors to identify the "best" factor solution. A combination of objective and subjective criteria was used to make this final choice (see, for example, Nunnally & Bernstein, 1994). Scree plots based on graphed eigenvalues of more than 1.0 were used to determine the number of factors to be used in the forced factor solutions. The choice among resulting factor combinations was based on the cumulative proportion of variance explained, and the consistency of the emerged factors. (The latter criterion was applied when comparison of the results with already published findings reported was possible). In addition the factors were assessed in terms of their overall meaningfulness and acceptable degrees of generality and fragmentation.

Items with factor loadings of less than 0.40 were dropped from the factor solutions. Also, Cronbach's alpha coefficient of reliability was used to determine the internal consistency for the entire scale and within each factor. There is no common agreement in the existing literature on what score should be an acceptable level of internal reliability. Kuhn and Jackson (1989) considered a score of 0.40 or greater to be acceptable. Nunnally (1978) has argued that an alpha of 0.60 or greater is necessary before using the scale. However, he conceded that reliability values of 0.50 or 0.60 are sufficient for exploratory research (Nunnally, 1967). (For example, measurement of anticipated benefits using a scale compiled specially for this study can be considered an exploratory analysis).² Based on previous research, the present study adopts a criterion of scale reliability of 0.50 or greater.

The sets of factors to be used in further analyses were identified using these criteria, and the factor-based dimension scores were computed by summing each respondent's score on each item

² The same is true for the factor analysis of negotiation strategies, which represents a novel feature of this study and leisure research in general. As mentioned earlier, this analysis is presented in the chapter on leisure constraints negotiation (Chapter 8).

in a given dimension and then dividing by the number of items in that dimension. These dimensions were used in cluster analysis.

Cluster analysis: Cluster analysis was executed by means of SPSS (Quick Cluster). The procedure was initially carried out for three through seven clusters for each of the examined variables, because fewer than three clusters would represent a too high level of generality, while more than seven would defeat the purpose of exercise.

To address the element of subjectivity in cluster analysis and select the best cluster solution, the following three criteria from Jackson's 1993 study were used: (1) None of the clusters should be large enough to include a majority of respondents, for it would then probably contain an unacceptably high level of within group variation; (2) Consequently, none of the clusters should be too small to be omitted from further statistical analysis; (3) The attributes of each cluster should make intuitive sense in terms of the combination of items it contained. The last point implies that the choice of cluster solutions should be based on evaluation of the meaningfulness of the extracted cluster groups. This decision was based on the evaluation of logical consistency and compatibility of the items belonging to each cluster, as well as the on their originality or uniqueness (lack of overlap and repetition among the clusters).

To determine the "best" sets of clusters using the third criterion noted above, the three-to-seven-cluster solutions for leisure activities, anticipated benefits, constraints, and environmental attitudes were graphed and examined. The sets of graphs were produced using Z-scores derived from the cluster means. Each graph represents one cluster within a cluster solution. Z-scores indicate relative levels of activity participation, anticipation of leisure benefits, and experiencing leisure constraints. As far as environmental attitudes are concerned, higher (above average) Z-scores indicate a technocentric orientation, and lower Z-scores are consistent with a pro-environmental (ecocentric) stance.

Finally, due to space considerations and in order to avoid a too high level of detail, the tables and graphs representing only "final" solutions chosen for subsequent analyses are presented in this chapter. The remaining, "rejected" cluster solutions can be found in Appendix C.

Aggregation and Classification of Leisure Participation Variables (Leisure Activities)

Leisure activities represent the most detailed set of items of the questionnaire (77 items). Recreation participation was measured by asking respondents how frequently they had participated during the previous year in each of the listed leisure activities, using an ordinal 4-point scale

consisting of the following responses: 1 = "at least once a week," 2 = "at least once a month," 3 = "less than once a month," and 4 = "never in the last year."

When the questionnaire was being developed, the intention was to include the largest possible number of items in order to cover as broad and diverse range of leisure involvements as possible. On the next, analytical, stage of the research it became important to reduce this large item pool to a number of distinctive, meaningful and internally consistent dimensions.

Factor analysis

The analysis of the initial data set was run in the following sequence. First, before proceeding with factor analysis, a frequency distribution for all of the 77 activity items was run with 4 = the lowest and 1 = the highest mean score.³ Then, the whole set of activities was evaluated based on two criteria: frequencies of participation and relevance to the study. Based on these criteria, 19 items were excluded from further examination. Among them were those with the lowest participation rates (scored between 3.9 and 4.0) and those with the highest rate of participation (ranking between 1 and 1.5). The first group comprised the activities which usually are not very common among general population, such as orienteering, motocross, martial arts, and so on. The only exception was given to one item falling into this group, hunting, which was considered for further analysis based on the criterion of relevance. There were logical reasons for this exception, including importance of this particular item, representing so called "consumptive" recreation, for the subsequent analysis of the associations with environmental attitudes (Chapter 6). There were only two "consumptive" items in the questionnaire (hunting and fishing), and it would be reasonable to retain both of them in order to examine the relationships with other variables. It also would make sense for the reason of comparison with preceding studies, which took hunting into consideration.

In contrast, the second group of removed activity items included very common pursuits, which are typical for almost everyone, and therefore would not show much variation among the respondents (items such as visiting friends and family, reading, listening to music, watching TV and video).

³ Before proceeding with factor analysis, leisure activity items were recorded in the reverse order for compatibility with other variables (1 representing the lowest and 4 the highest level of participation).

The initial factor solution (with an unspecified number of factors) resulted in the extraction of 20 factors.⁴ The correlation matrix failed to converge. Then, based on the scree plot a decision was made to try four- and six-factor solutions. In the course of factor analyses a large number of items with factor loadings of less than 0.4 were removed from the factors in both the 4 and 6-factor sets.⁴

The four-dimension solution was rejected mainly because of some item inconsistencies within the factors. For example, one of the factors represented a mixture of sport activities with pursuits such as "Playing video and electronic games" and "Billiards." Likewise, another factor of the same set, while consisting exclusively of outdoor activities, also included a quite different item, "Attending educational courses, lectures." Although these leisure involvements are not entirely incompatible, they would better fit conceptually into separate dimensions, as happened in the 6-factor solution (Table 4.1).

The six-factor solution proved to be more insightful and therefore was chosen as the basis for further data examination (Table 4.1). The six generated factors had eigenvalues greater than 1.6. The cumulative percentage of explained variance (43%) was also higher in comparison with the four-factor solution (37.7%). Cronbach's alpha coefficients for the six factors ranged from 0.58 to 0.79, exhibiting an acceptable degree of internal consistency.

The content of these dimensions is meaningful and consistent. Each of them has its own distinctive meaning. For example, Factor 1, *Sports*, contains the following leisure activities: Ice skating, Basketball, Tobogganing, Soccer, Baseball, and Hockey. Factor 2, *Appreciative Outdoors*, includes items such as Backpacking, Tent camping, Canoeing, Cross-country skiing, Bicycling, Downhill skiing, and Trail biking. Factor 3, *"Soft Outdoors"/Intellectual Recreation*, combines less physically intensive and possibly urbanized "soft outdoor" activities: Nature walks, Walking, Hiking, and some intellectual and community oriented activities, such as Visiting a museum, Volunteer activities, and Attending educational courses. Factor 4, *Consumptive and Mechanized Outdoor Recreation*, has consistent loadings of energy consuming and extractive leisure activities, including Motor boating, Water skiing, Snowmobiling, Hunting, Trailer camping, and Fishing. Factor 5, *Social Recreation*, and Factor 6, *Home-Based/Hobbies*, also contains very consistent sets of directly relevant activity items.

⁴ Twenty eight items were dropped in the four-factor solution and twenty two in the six-factor version.

Table 4.1
Leisure Participation: 6- Factor Solution

Factors / Dimensions	Factor Loadings	Activities	Cronbach's alpha
Factor 1 Sports	0.70	Ice skating	0.75
	0.70	Basketball	
	0.65	Tobogganing	
	0.63	Soccer	
	0.61	Baseball	
	0.54	Hockey	
Factor 2 Appreciative Outdoors	0.71	Backpacking	0.69
	0.65	Tent camping	
	0.57	Canoeing/Kayaking	
	0.56	Cross-country skiing	
	0.52	Bicycling	
	0.47	Downhill skiing	
Factor 3 "Soft Outdoors"/ Intellectual Recreation	0.42	Trail biking	0.58
	0.59	Nature walks, nature study	
	0.53	Walking for pleasure	
	0.52	Hiking	
	0.51	Visiting a museum, art gallery	
	0.46	Volunteer work	
Factor 4 Consumptive and Mechanized	0.42	Attending educational courses, lectures	0.66
	0.82	Motor boating	
	0.62	Water skiing	
	0.61	Snowmobiling	
	0.58	Hunting	
	0.46	Trailer camping	
Factor 5 Social Recreation	0.44	Fishing	0.61
	0.65	Socializing at clubs, bars	
	0.57	Dancing	
	0.56	Going to theatre, concerts, movies, etc.	
	0.55	Billiards	
	0.47	Dining out	
Factor 6 Home Based/Hobbies	0.60	Doing a craft or hobby	0.58
	0.57	Building & repairing; Shop work	
	0.57	Home decorating	
	0.53	Driving for pleasure	
	0.50	Bird watching	
	0.49	Gardening	

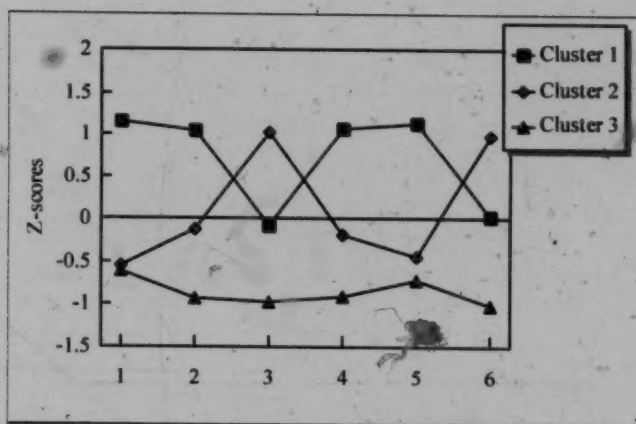
Cluster Analysis

Cluster analysis was then performed on the six computed (factor-based) new activity dimensions. These six new variables were grouped into three to seven clusters and the resulting cluster combinations were then examined to choose the "best" solutions using the three criteria outlined above. Graphic versions of the clusters selected for using in subsequent chapters are presented in Figures 4.1 through 4.3. Graphed information on the rest of the cluster groups is assembled in Appendix C.

Comparative analysis of the emerged cluster combinations revealed that the four and six cluster solutions (Appendix C) turned out to be the least acceptable with respect to meeting the selection criteria. For example, the six-cluster combination contained two "very small" clusters of only 15 individuals. This number of cases was not sufficient for further statistical analysis, and therefore, the 6-cluster solution did not meet the second selection criterion. Moreover, both four- and six-cluster combinations contained clusters that scored above average on the majority of leisure types and did not provide a clear indication of a particular participation style. In other words, these clusters were not "clear cut" and easy to interpret and therefore did not make much of "intuitive sense" (the third selection criterion). Without clear discrimination according to recreation patterns subsequent attempts to uncover relationships with other leisure variables would be unsuccessful.

The remaining cluster combinations (three-, five- and seven-cluster groups) were selected for the next stages of investigation reported in subsequent chapters. However, they were assigned different roles and functions in the analyses. The 3-cluster set was a "basic classification choice" to be used in all four analytical chapters (Chapters 5 through 8). The 5- and 7-cluster combinations (for the reasons outlined below) were intended only for a complementary, limited application in the analyses of associations with environmental attitudes (Chapter 6).

The major considerations for selecting the 3-cluster set as a basic solution for further data examination were as follows. First, all its clusters contained a large number of cases, which made it suitable for subsequent statistical procedures (Figure 4.1). (Having a sufficient number of respondents was especially important for the analyses of associations with leisure constraints, and negotiation variables; the first ones were reported by 68.6% of the sample, and the second ones by only 57.4% of the sample). Second, the three-cluster solution was characterized by clearly demarcated leisure styles (Figure 4.1), meeting, thereby, the third selection criterion (meaningfulness or "intuitive sense"). High participation levels in a combination of sports,



Factor-Based Dimensions:

- 1 = Sports
- 2 = Appreciative Outdoors
- 3 = "Soft Outdoors"/Intellectual
- 4 = Consumptive/Mechanized
- 5 = Social Recreation
- 6 = Home-Based/Hobbies

Cluster 1 = 52 cases

Cluster 2 = 93 cases

Cluster 3 = 151 cases

Figure 4.1. Leisure Activities: 3-Cluster Solution

appreciative outdoors, consumptive outdoor activities, and social leisure distinguished the first cluster from other clusters of the 3-cluster group. It is clear that the members of this cluster enjoyed a broad variety of leisure activities, which had one thing in common: physical and social intensity. The second cluster of individuals was very different from the first one. It had higher than average participation rates in "soft outdoors"/intellectual leisure and home-based activities combined with hobbies and lower than average participation rates in other types of outdoor recreation (both consumptive and appreciative), social activities, and sports. The members of the third cluster scored below average on all types of leisure activities and reflected, thereby, a passive stance toward leisure participation.

In summary, the first two clusters of the selected 3-cluster combination distinguished between adherents of clearly demarcated participation styles: physically and socially active recreationists and devotees of less physically intensive, "soft outdoors," intellectual, home based recreation, and hobbies (Figure 4.1). Therefore, the first cluster of the set was labelled *Physically/Socially Active* group of recreationists, second cluster was named *Intellectual Self-propelled* group, and the third cluster was identified as *Inactives*.⁵

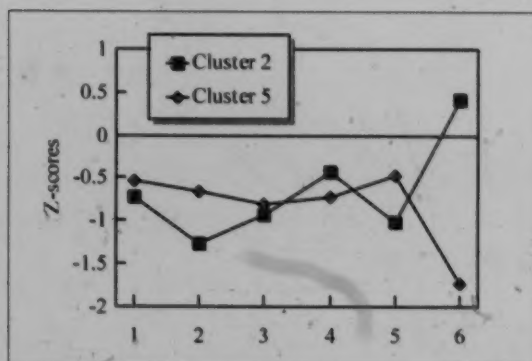
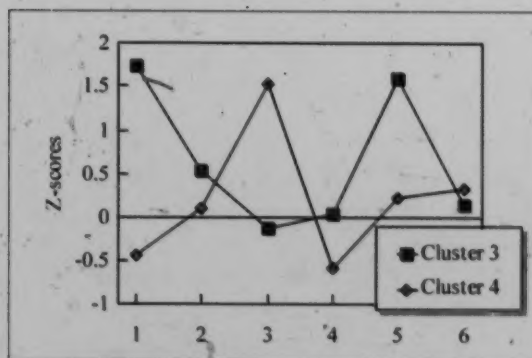
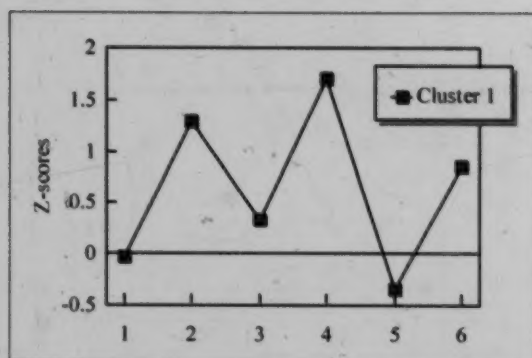
⁵ The fact that the third, "inactive" cluster of the 3-cluster group contains a large number of cases (151 case or 51%) may be considered as a shortcoming from the perspective of the first selection criterion. However, the data indicate that all other cluster solutions contained a large number of inactives (some solutions even accommodated more than one inactive or almost inactive group of individuals) (see Figure 4.1 through 4.3 and Appendix C).

Although the selected 3-cluster combination generally met the selection criteria, it was not uniformly "well-fit" for all data examinations planned for the thesis. It did not discriminate between outdoor recreation and other types of leisure activities as well as between consumptive and mechanized outdoor recreation and more appreciative outdoor pursuits. Such differentiation was necessary for examining association of leisure participation with environmental attitudes. Therefore, the decision was made to use complementary, more detailed 5- and 7-cluster aggregations specifically for this type of analysis. Unlike the 3-cluster solution, the 5-cluster set clearly differentiated between people distinguished by participation in outdoor recreation and other types of leisure participants (Figure 4.2). The 7-cluster solution, in turn, provided further differentiation within the outdoor group by singling out participants in consumptive and mechanized activities and pursuers of "appreciative" outdoor recreation (Figure 4.3).

Generally, both the five- and seven-cluster sets met the choice criteria, especially from the perspective of making "intuitive sense" in terms of their activity combinations. Within the 5-cluster set, members of the first cluster were distinguished by participation in diversified outdoor activities with some inclination for home-based recreation and hobbies (Figure 4.2). The third cluster clearly discriminated in favour of social leisure and various (predominantly team; see Table 4.1) sport activities. The members of the fourth, practically unidimensional cluster, preferred "soft outdoors"/intellectual activities to all other types of leisure, with slightly above average participation rates in social pursuits and a combination of home-based recreation and hobbies, and lower than average involvement in consumptive/mechanized recreation and sports.

A negative feature of the five cluster combination was the emergence of two "inactive" groups in Clusters 2 and 5. The former one was characterized by a very modest (scoring at a slightly higher than average mark) participation exclusively in home-based recreation and hobbies, being, thereby, practically another "inactive" group. These two inactive groups of respondents were dropped from further analyses, and the original 5-cluster set has been used as a modified, "truncated" version in the analyses of associations between environmental attitudes and leisure participation in Chapter 6.

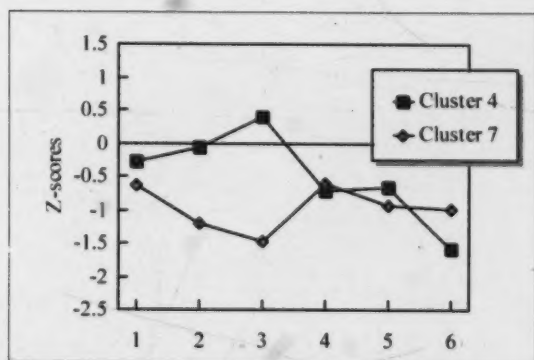
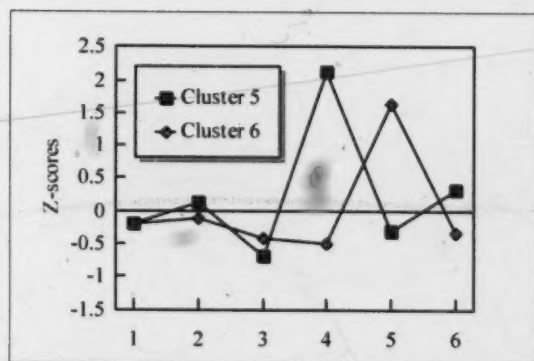
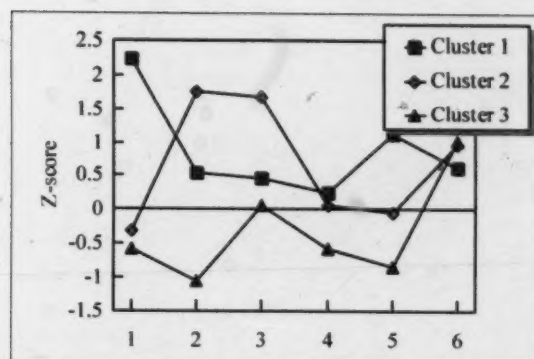
As mentioned earlier, the 7-cluster set differentiated even more among the participants in outdoor activities (Figure 4.3). Cluster 2 singled out pursuers of "appreciative" outdoor recreation combined with "soft outdoors"/intellectual recreation and also with home-based activities and hobbies. The finding that appreciative leisure did not emerge as a single cluster, but in a combination with other pursuits, confirmed the assumption that the concept of "participation style"



Factor-Based Dimensions:
 1 = Sports
 2 = Appreciative Outdoors
 3 = "Soft Outdoors"/ Intellectual
 4 = Consumptive/Mechanized
 5 = Social Recreation
 6 = Home-Based/Hobbies

Cluster 1 = 32 cases
 Cluster 2 = 89 cases
 Cluster 3 = 25 cases
 Cluster 4 = 68 cases
 Cluster 5 = 82 cases

Figure 4.2. Leisure Activities: 5-Cluster Solution



Factor-Based Dimensions:

- 1 = Sports
- 2 = Appreciative Outdoors
- 3 = "Soft Outdoors"/ Intellectual
- 4 = Consumptive/Mechanized
- 5 = Social Recreation
- 6 = Home-Based/Hobbies

- Cluster 1 = 20 cases
- Cluster 2 = 33 cases
- Cluster 3 = 82 cases
- Cluster 4 = 38 cases
- Cluster 5 = 23 cases
- Cluster 6 = 37 cases
- Cluster 7 = 63 cases

Figure 4.3. Leisure Activities: 7-Cluster Solution

is not always confined to a single type of leisure activity. In fact, leisure participation can be a complex construct, involving complex aggregates of leisure activities, which are indicative of a combination of different interests and preferences. On the other hand, evolving of a unidimensional, consumptive and mechanized cluster (Cluster 5) pointed out to the possibility of a specialized participation. The same, unidimensional, pattern emerged for home-based activities and hobbies (Cluster 3) and social recreation (Cluster 6). Finally, the first of the emerged clusters (Cluster 1) was characterized by above average participation rates in all types of leisure activities, but was clearly distinguished by involvement in sport activities as well by an inclination for social recreation.

Similar to the 5-cluster set, the 7-cluster solution contained two practically "inactive" clusters (Clusters 4 and 7), which were also removed from subsequent analyses, which were carried out using a reduced, modified cluster combination (Chapter 6).

To summarize, 3-cluster set and modified 5- and 7-cluster solutions were chosen for the next stages of data examination. The 3-cluster group was selected as a "basic" solution for use in all types of analyses, and the modified 5- and 7-cluster groups were intended exclusively for the analyses of the links between environmental attitudes and leisure participation.

Aggregation and Classification of Anticipated Benefits

Anticipated benefits of each respondent were measured by responses to 38 statements about the reasons for taking part in leisure activities, as described in Chapter 3. Each respondent was asked to circle the number corresponding with his or her strength of agreement or disagreement with each statement. The following response categories were used: 1 = "not important," 2 = "somewhat important," 3 = "important," 4 = "very important."

Factor analysis

Factor analysis without a preset number of factors was first run on the 38 benefit items. The majority of the resulting eleven factors made logical sense in terms of emerged themes and the degree of cohesion of the items within each of the factors. However, prior to further using this factor solution as a base for cluster analysis and for other statistical procedures, it had to be altered and re-run in order to reduce the number of factors and enhance the logical content of the factor structure.

A single-item factor of the set (Factor 11, which included only one benefit item (item 10, "Be away from my family") was somewhat out of context and was dropped in order to eliminate fragmentation. Two other small (two- and three-item) factors (Factors 9 and 10) were also left out of the final solution due to lack of consistency among their items.⁶ (Overall, these factors did not add much to the understanding of the structure of anticipated leisure benefits).

After these three factors and corresponding items were removed, factor analysis was re-run on the remaining 32 items. The resulting eight-factor set is presented in Table 4.2. The proportion of variance accounted for was 63%. Cronbach's alpha coefficients ranged from 0.58 to 0.82.

All factors of the final set were distinctive and internally consistent. While significantly reducing the initial set of 38 benefit items to a manageable set of 8 composite variables, they retained a high level of diversity, which is important to ensure insightful analyses of associations with other variables. For example, in Factor 1, *Risk/Skill Testing*, interrelated themes of risk, excitement and physical stimulation emerged, along with testing/using one's skills and competing with others. Factor 2, *Privacy/Escape*, embodied issues such as seeking solitude, slowing down, escaping crowds and noise, having a chance to meditate and get tranquillity and peace. Factor 3, *Learning*, embraced connected items of seeking intellectual stimulation and aesthetic experiences, learning and exploring things, learning about different places, ability to do something different from work/home routine and be creative. Factor 4, *Enjoying Family and Friends*, involved being with family and friends and related issues of doing things on own pace, being free to do wanted things, and being with people who have the same values and interests.

The following factors (Factors 5 through 8) were smaller in size than those described above, ranging from two to three items per factor. They also revealed distinctive, consistent themes, such as enjoying and learning about nature (Factor 5, *Enjoying Nature*), relaxation and having fun (Factor 6, *Relaxation*), *Contribution/Leadership* (Factor 7, including having a chance of contributing to one's community, leading others and teaching/sharing skills with others) and meeting social needs (Factor 8, *Social Gains*, including meeting people of opposite sex, meeting new people and getting social recognition).

⁶ Factor 9, for example, comprised the following different anticipated benefits: "For physical health and exercise (item 2), "To escape daily routine" (item 1), and "To develop new skills and abilities" (item 3; loading less than 0.4). This factor does not show the same conceptual interdependence among the items that other factors enjoy (Table 4.2). Likewise, Factor 10, which was also eliminated from the final solution, is not distinguished by a strong coherence between its items ("To keep busy" and "To observe other people;" items 7 and 4 respectively).

Table 4.2
Anticipated Leisure Benefits: 8-Factor Solution

Factors / Dimensions	Factor Loadings	Anticipated Benefits	Cronbach's alpha
Factor 1 Risk / Skill-Testing	0.75	To test myself in risky/challenging situations	0.80
	0.74	To test my competence/skills	
	0.66	To use my skills and talents	
	0.63	To compete with others	
	0.58	To seek excitement	
Factor 2 Privacy / Escape	0.50	To seek physical stimulation	0.82
	0.78	To get privacy	
	0.76	To seek solitude	
	0.68	To slow down	
	0.65	To escape crowds and noise	
Factor 3 Learning	0.60	To meditate	0.73
	0.58	To get tranquillity/peace	
	0.74	To seek intellectual stimulation and aesthetic experiences	
	0.64	To learn and explore things	
	0.50	To learn about different places	
Factor 4 Enjoying Family / Friends	0.49	To do something different from work/home routine	0.77
	0.47	To be creative	
	0.68	To be with my family	
	0.67	To do things on my own pace	
	0.64	To be with my friends	
Factor 5 Enjoying Nature	0.62	To be free to do what I really want	0.78
	0.40	To be with people having similar values and interests	
Factor 6 Relaxation	0.73	To enjoy nature	0.65
	0.73	To learn about nature	
Factor 7 Contribution / Leadership	0.74	To have fun	0.64
	0.70	To relax (mentally/physically)	
	0.77	To contribute to my community	
Factor 8 Social Gains	0.64	To lead others	0.58
	0.49	To teach/Share my skills with others	
	0.80	To meet people of the opposite sex	
	0.66	To meet new people	
	0.44	To get social recognition	

Comparison of the results of factor analysis in this study with previous research is problematic for several reasons. They include the different item composition of the measurement scales used in various studies and the more general character of the present research compared to previous studies, many of which focused specifically on outdoor recreation. Finally, and most important, benefit-related studies are conceptually inconsistent and involve different concepts, such as leisure motivations, needs, experience preferences, leisure meanings, and so on (see Chapter 2). However, the factor structure of benefits that emerged here is comparable to the findings of some previous studies. This contributes to the credibility of the results of this research. For example, Graefe, Ditton, Roggenbuck, and Schreyer's (1981) study of factor structure of "leisure meanings" of river floaters uncovered factors resembling the following factors emerged in this study:

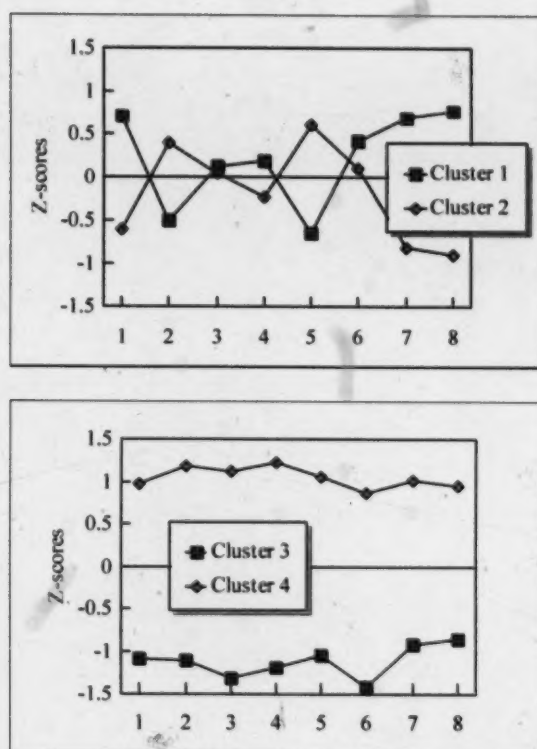
Learning and Enjoying Nature (combined), *Privacy/Escape*, *Risk/Skill-testing*, and *Enjoying Family/Friends*.

The eight benefit factor-based dimensions were calculated in the same way as for the dimensions of leisure activities. The resulting new composite variables were employed as a basis for cluster analysis, which is described in the following sub-section.

Cluster analysis

Five sets of cluster analyses of anticipated leisure benefits, ranging from three to seven clusters in a set (Figure 4.4 and Appendix C), were obtained using the eight factor-based benefit dimensions. Similar to the analysis of leisure activities, the criteria of cluster size (number of cases in each cluster should not be too big or too small) and "intuitive sense" (meaningfulness) of cluster solutions, were employed to make the selection of the cluster group to be used in the next parts of this research.

As far as the first two criteria are concerned, the three-, four-, and five-cluster solutions had the most satisfactory, balanced case distributions (there were no clusters that were disproportionally large or small), whereas the six- and seven-cluster were not acceptable from the standpoint of cluster size (Appendix C). The 6-cluster solution contained a group of only 19 respondents. The 7-cluster solution indicated a high degree of fragmentation because of the emergence of two very similar clusters of people distinguished by a generally low benefit expectation. Combined together, these two "non-benefit" clusters constituted a large proportion of respondents (93 cases or 31% of all clustered cases). Moreover, the 6- and 7-cluster sets were



Factor-Based Dimensions:

- 1 = Risk/Skill Testing
- 2 = Privacy/Escape
- 3 = Learning
- 4 = Enjoying Family/Friends
- 5 = Enjoying Nature
- 6 = Relaxation
- 7 = Contribution/Leadership
- 8 = Social Gains

Cluster 1 = 72 cases

Cluster 2 = 87 cases

Cluster 3 = 57 cases

Cluster 4 = 76 cases

Figure 4.4. Anticipated Leisure Benefits: 4-Cluster Solution

problematic with regard to the third, "intuitive sense" criterion, namely by not showing enough distinctiveness or "contrast" in some of their clusters. For example, both solutions contained (besides a "uniformly benefit-appreciative" cluster, which emerged in all cluster solutions) the clusters that scored above average on almost all benefit dimensions. At the same time, there was another type of not very distinctive clusters, which were virtually unidimensional and scored barely above average point on a single, major dimension. For these reasons, the 6- and 7-cluster sets were rejected.

When the remaining, 3-, 4-, and 5-cluster sets were evaluated, it became clear that the three-cluster combination was far too general to indicate much about anticipated benefits perceived by different groups of people, and hence, was not suitable for further consideration. The individuals in this cluster combination broke into a "very appreciative" group, which allegedly anticipated all types of benefits under investigation (scored higher than average level on all eight benefit dimensions), a group which reportedly did not enjoy benefits from their leisure involvements

(scored low on all dimensions) and a group which scored uniformly average on all dimensions, not showing differentiation among the benefit types.

Like the 6- and 7-cluster solutions, the 5-cluster set also contained a not so "clear-cut" or distinctive cluster, which, although having some "peaks," scored above average on the seven out of eight benefit dimensions. The clusters that emerged in the 4-cluster solution (Figure 4.4) appeared to be more "hypothetically acceptable." This, along with a very even, balanced distribution of individuals among the clusters, made them acceptable for use in further analyses.

The four-cluster solution clearly demarcated individuals into clusters with distinctive, meaningful and easy-to-characterize features. Cluster 1 represented individuals who expected strong sensations (such as risk, challenge, and excitement) from their leisure involvements, as well as social gains (they scored higher than average on the dimensions such as *Risk/Skill-testing*, *Contribution/Leadership*, and *Social Gains*). Relaxation also played some role in this cluster in terms of anticipated benefits. In contrast, benefits involving privacy and escaping routines and enjoying nature were not intensively anticipated.

The second cluster of the four-cluster set was opposite in meaning to the first one. It comprised individuals who expect mainly nature-related benefits and privacy from their leisure. They scored higher than average on *Enjoying Nature* and *Privacy/Escape* dimensions and lower than average in anticipated benefits linked to risk, skill-testing, competition and excitement, as well as on the benefits resulting from social engagements (dimensions such as *Social Gains* and *Contribution/Leadership*). Similar to Cluster 1, members of the second cluster scored at an average level in anticipation of the benefits related to involvement with family and friends and learning and creativity.

Clusters 3 and 4 of the four-cluster set represented a "non-benefit" group (distinguished by low anticipation of all types of considered benefits) and an opposite group of individuals who intended to enjoy all kinds of benefits as a result of their leisure.

Clusters of the four-cluster solution, which were selected for use in further analyses carried out in this research, were given the following labels: (1) Cluster 1, the *Adventurous Socialites*, a group of risk loving, competitive and sociable individuals; (2) Cluster 2, *Private Naturalists*, a group of people who appreciated benefits related to nature and getting privacy; (3) Cluster 3, *Pessimists*, those who were generally not enthusiastic about potential benefits of their leisure, or, in other words, were not very appreciative toward their leisure; (4) Cluster 4, *Appreciative Optimists*, a group of people who anticipated a broad range of benefits from their leisure.

Aggregation and Classification of Environmental Attitudes

To measure environmental attitudes the survey respondents were asked about the degree of their agreement with 24 statements about the natural environment and associated issues, as described in Chapter 3. A five-point response scale was used for each item (statement), ranging from 1 = "strongly disagree" and 2 = "disagree," through 3 = "neutral," to 4 = "agree" and 5 = "strongly agree." Raw scores for statements implying a high level of environmental concern were reversed, so that low scores uniformly represented the pro-environmental point of view.

Factor analysis

Factor analysis with an unspecified number of factors resulted in the extraction of 5 factors (Table 4.3). In the process of analysis one item with a factor loading of less than 0.40 ("We attach too much importance to economic measures of the level of well-being in our society") was left out of the solution. The emerged 5 factors accounted for 54.3 % of the total variance. Cronbach's alpha coefficient of reliability for the five factors varied from 0.64 to 0.82.

Environmental attitudes have been scrutinized in the leisure and non-leisure literature. Therefore, it makes sense to benchmark the results emerging in this study against the outcomes of previous research. Past research on the NEP indicates that it encompasses at least three dimensions involving balance of nature, limits to growth, and human domination over nature (Albrecht et al., 1982; Geller & Lasley, 1985; Gooch, 1995; Noe & Snow, 1990). Although this study used a much broader measurement scale than the NEP (namely, Jackson's [1986] Environmental Attitudes Scale; see Chapter 2), the extracted factors bore close resemblance to the mentioned dimensions. For example, the items which normally comprise the "balance of nature" dimension (Albrecht et al., 1982; Geller & Lasley, 1985) were incorporated in the first factor emerged in this study (*Harmony With Nature*). The other two dimensions ("limits to growth" and "human domination over nature") were very close to the *Limits to the Biosphere* and *Dominance Over Nature* dimensions extracted in this study.

Previous analyses of the broader, Environmental Attitudes Scale (EAS), resulted in uncovering four factors, "Negative consequences of growth and technology," "Relationship between mankind and nature," "Quality of life," and Limits to the biosphere" (Jackson, 1986; Kuhn and Jackson, 1989). The results of the current research do not exactly mirror the findings of these authors (five factors emerged in this study instead of four), but they are comparable to their results. Some of the factors resulting from this study (*Quality of Life*) and (*Limits to the Biosphere*) are almost

Table 4.3
Environmental Attitudes: 5-Factor Solution

Factors	Loadings	Environmental Attitude Scale Items	Cronbach's alpha
Factor 1 Harmony With Nature	0.69	When humans interfere with nature it often produces disastrous consequences	0.82
	0.67	Canadians are going to have to drastically reduce their consumption of material goods and resources...over the next few years	
	0.67	The balance of nature is very delicate and easily upset	
	0.66	Mankind is severely abusing the environment	
	0.55	Humans must live in harmony with nature in order to survive	
	0.54	Humans have the right to modify the environment to suit their needs	
	0.53	Science and technology often do as much harm as good	
Factor 2 Quality of Life	0.52	Humans need not adapt to the environment because they can remake it to suit their needs	0.65
	0.51	Rapid economic growth often creates more problems than benefits	
	0.69	Economic growth improves the quality of life for all Canadians	
	0.65	The positive benefits of economic growth far outweigh any consequences	
	0.61	Most problems can be solved by applying more and better technology	
Factor 3 Stop Growing	0.60	We can continue to raise our standard of living through the application of science and technology	0.65
	0.61	More emphasis should be placed on teaching children about nature than on teaching them about science and technology	
	0.61	In general, the Canadian people would be better off if the nation's economy stopped growing	
	0.57	We cannot keep counting on science and technology to solve mankind's problems	
Factor 4 Limits to the Biosphere	0.57	To maintain a healthy economy, we will have to develop a "steady-state" economy...	0.64
	0.77	The earth is like a spaceship with only limited room and resources	
	0.68	There are limits to growth beyond which our industrialized society cannot expand	
	0.51	We are approaching the limit to the number of people the earth can support	
Factor 5 Dominance Over Nature	0.49	In the long run, there are no limits to extent to which we can raise our standard of living	0.69
	0.80	Plants and animals exist primarily to be used by humans	
	0.79	Mankind was created to rule over the rest of nature	

identical with the corresponding factors of Jackson and Kuhn and Jackson, and many items which loaded on their first factor also repeated themselves in the first factor in this study. Overall, the topics which emerged as a result of factor analysis in the present research resembled in meaning the dimensions discovered by the mentioned authors. Apart from the already mentioned themes related to the quality of life and limits to the biosphere, the dimensions uncovered in this study included *Stop Growing*, *Dominance Over Nature*, and *Harmony With Nature* dimensions, the latter two factors being "more specific reflections" of Jackson's and Kuhn and Jackson's "relationship between mankind and nature" theme.

As to the observed differences in the results, they can be attributed to a number of reasons, including the time factor and study design. Jackson's and Kuhn and Jackson's studies were conducted with a two-year interval about 15 years ago. Public environmental attitudes may have changed since that time, but no other longitudinal studies using the EAS scale have been conducted. Also, the two surveys used a broad population base (Edmonton and Calgary). The present study, however, was limited mainly to the middle-class Edmonton population.

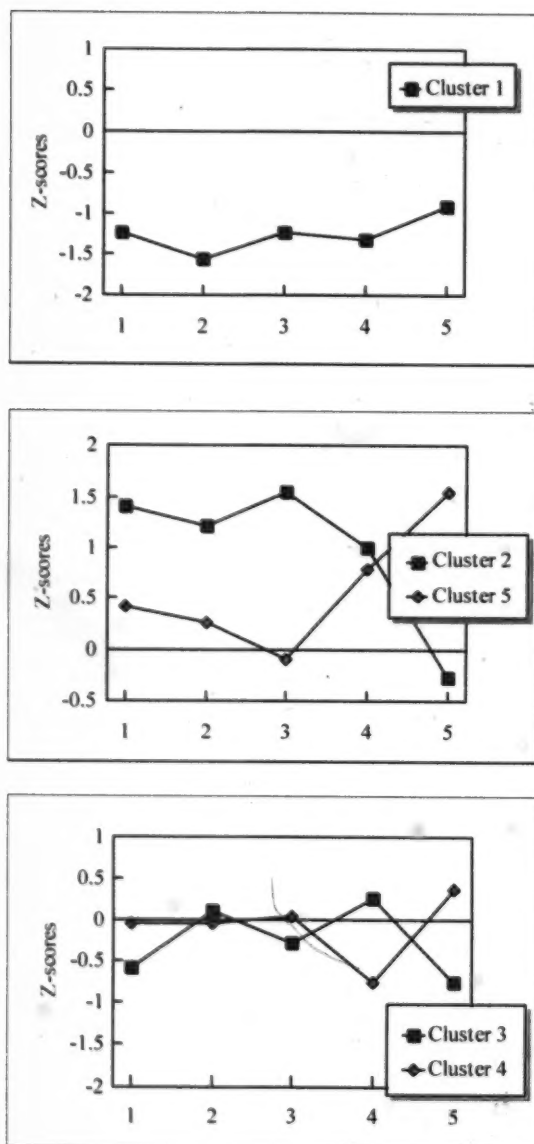
In summary, the extracted set of factors is comparable with findings reported in previous studies and the factors exhibited a strong degree of internal consistency. Therefore, a decision was made to use the five factor-based dimensions for cluster analysis and in other statistical tests carried out elsewhere in the thesis.

Cluster analysis of environmental attitudes and comparison of cluster solutions

Cluster combinations based on the five environmental attitudes factors are shown in Figure 4.5 (the final solution) and in Appendix C (rejected versions). Low scores on the graphs reflect a pro-environmental orientation, and high scores exceeding zero level are consistent with "anti-environmental" or "technocentric" views.

The major criterion applied in choosing the "best" cluster combination of environmental attitudes was attaining a clear distinction between consistently ecocentric and technocentric people, and also those "in the middle" who did not express any strong orientation (a "medium" or "neutral" group of respondents). Such basic, clear distinctions are important for subsequent analyses, which intend to find out how different aspects of leisure may be linked to general environmental orientation.

Examination of case distribution within each of the available cluster solutions (three to seven-cluster sets) resulted in rejection of the 4-, 6-, and 7-cluster combinations because each of them



Factor-Based Dimensions:

- 1 = Harmony With Nature
- 2 = Quality of Life
- 3 = Stop Growing
- 4 = Limits to the Biosphere
- 5 = Dominance Over Nature

Cluster 1 = 70 cases
 Cluster 2 = 35 cases
 Cluster 3 = 73 cases
 Cluster 4 = 65 cases
 Cluster 5 = 28 cases

Figure 4.5. Environmental Attitudes: 5-Cluster Solution

contained too small clusters. (In the 4-cluster version one cluster captured only 17 individuals, the 6-cluster set contained a cluster of 7 respondents, while the 7-cluster solution included one group of 13 respondents and another of only 8). Out of the remaining 3- and 5-cluster combinations, the 3-cluster set was excluded from further consideration because it was too general and differentiated only among one "ecocentric" and two "technocentric" clusters, without singling out "neutral" or "moderate" respondents.

As far as the 5-cluster combination is concerned, it represented a satisfactory choice for further analyses according to all considered criteria (Figure 4.5). To begin with, it met the first criterion by showing a relatively balanced case distribution amongst its clusters. Secondly, it clearly demarcated among "strong" ecocentric and technocentric people, and contained a substantial proportion of "neutral" people, who could also be characterized as "moderately ecocentric."⁷ The 5-cluster solution contained two very contrasting technocentric clusters, which could be combined together into a single technocentric group for further analysis. It also contained a very well defined cluster of ecocentrics who scored consistently low (far below the average level). There were two "neutral to moderately ecocentric" clusters, which when combined together formed a single, "neutral" or "moderate" group.

Thus, the five-cluster solution was selected as the most satisfactory pattern for further analyses. The selected 5-cluster set was regrouped (modified) into the following three clusters: *Technocentrics* (Cluster 2 combined with Cluster 5; 63 cases), *Neutral/Moderately Pro-Environmental* (Clusters 3 and 4 merged; 138 cases), and *Ecocentric* (Cluster 1; 70 cases).

Comparisons with other studies generally confirmed proportional distribution of cases among the emerged major attitudinal groups. For example, Jackson (1986) who also surveyed Alberta population, but used different technique to classify his respondents according to their attitudes, reported that "consistent" ecocentrists or technocentrists were in the minority, accounting for almost equal proportions of the respondents (17.0% and 15.6% respectively; compared to 25.8% and 23.2% in the present study). At the same time, he obtained large groups of "moderate ecocentrists" (33.4%) and "moderate technocentrists" (33.9%) for a combined total of 67.5%. The "neutral" group in the present study also comprised the majority, or 50.9%, of the respondents.

⁷ In fact, none of the cluster solutions singled out "purely neutral" clusters, which would score evenly around zero level on all attitudinal dimensions. In each case "neutral" clusters had also a modest ecocentric orientation (scored slightly below average on one or two of the dimensions).

Coburn (1994) also reported lower percentages of respondents in ecocentric and technocentric groups, compared to the "moderate" categories.

Aggregation and Classification of Leisure Constraints

Perceived leisure constraints were measured by asking respondents how strongly they experienced each of the 21 constraints listed in the questionnaire. The strength or intensity of constraints experienced was measured by asking how important they are in respondents' leisure and recreation. The scale included the following responses: 1 = "not important," 2 = "somewhat important," 3 = "important," and 4 = "very important."

Factor Analysis

The analysis with an unspecified number of factors resulted in the extraction of six factors. All factors of the set were characterized by relatively high loadings of corresponding items (of more than 0.40). Therefore, no items were deleted because of low factor loadings. The only single-item factor of the set (factor 6, item 9: "Recreational facilities and areas are overcrowded") was omitted from the solution in order to eliminate fragmentation. Factor analysis was then re-run on the remaining 20 items and resulted in a five-factor set with 61.4% of the total variance explained.

The content of the emerged factor combination indicated that it would be a satisfactory choice for further analyses. Its dimensions were meaningful and clearly demarcated (Table 4.4) and exhibited a strong degree of internal consistency (Cronbach's alpha coefficients ranging from 0.72 to 0.80). Furthermore, the resulting constraints dimensions, the items they contained, and their ranking (in particular the placement of the time and costs dimensions; see also Chapter 7) are comparable to previously reported findings (summarized by Jackson & Scott, 1999). For example, as in many previous studies, the *Time* and *Costs* dimensions emerged, which, like previously reported results (e.g., Carroll & Alexandris, 1997; Jackson, 1993), were the most intensely felt constraints (as indicated by their sub-scale mean scores) compared to other types of leisure impediments.

As to the other factors comprising the 5-factor set identified in this study, the factor labelled *Skills/Social Factors*, closely resembles in meaning and composition Jackson's (1993) "Personal Reasons," Jackson and Henderson's (1995) "Lack of Skills," and McGuire's (1984)

Table 4.4
Leisure Constraints: 5-Factor Solution

Factors/ Dimensions	Factor Loadings	Leisure Constraints	Cronbach's alpha
Factor 1 Accessibility/ Isolation	0.73	There is no opportunity near my home	0.80
	0.70	I don't feel safe or secure	
	0.69	Recreational facilities are poorly kept or maintained	
	0.62	Lack of transportation	
	0.60	Feel bored	
	0.53	Consider an activity in which I would like to participate to be not entirely for my age/gender	
Factor 2 Knowledge	0.80	I don't know where I can take part in the activity	0.77
	0.76	I don't know where I can learn activity I would like	
	0.67	It is difficult to find others to participate with	
	0.59	Poor choice of facilities/programs (lack of opportunities and choices)	
Factor 3 Skills/ Social Factors	0.79	I do not have physical abilities	0.72
	0.76	My skills are not good enough	
	0.69	I am not at ease in social situations	
	0.55	Feel no energy and motivation	
Factor 4 Costs	0.88	The cost (rental and purchase) of equipment, material and supplies	0.79
	0.87	Admission fees or other charges for facilities and programs	
	0.67	The cost of transportation	
Factor 5 Time	0.84	Too busy with my family	0.72
	0.80	Home chores	
	0.73	Too busy with my work	

"Abilities/Social" factors. The two common types of constraints loaded on these factors. The first type implied not having the skills needed and/or physical ability to do an activity. The second type was different obstacles of social character. The factor *Knowledge* emerged in this study is similar to Carroll and Alexandris's (1997) "Lack of Knowledge" factor and also resembles Jackson's "Social Isolation" and Jackson and Henderson's "Social and Geographical Isolation" factors,

including identical items, such as "I do not know where I can learn the activity...", "I do not know where I can take part in the activity" and "It is difficult to find others to participate with." Finally, the factor *Accessibility/Isolation*, contains the majority of items loaded on Jackson's (1993) "Accessibility" dimension. However, in addition to the "physical accessibility" issue, the *Accessibility/Isolation* factor in the present study implies a substantial psychological component, which, probably may be connected to feeling isolated. Intrapersonal constraints, such as "Feel bored," "Consider an activity ... to be not ... appropriate for my age/gender," and "I don't feel safe or secure" also loaded on this factor, making it somewhat similar to Carroll and Alexandris's "individual Psychological" factor.

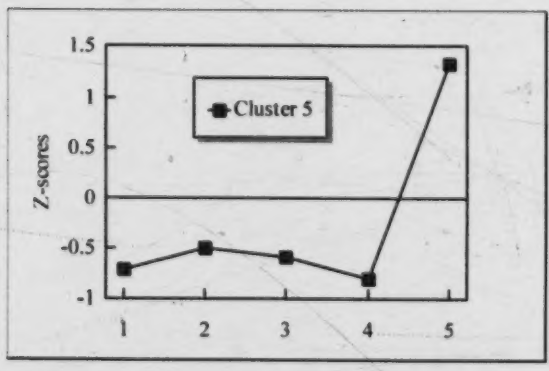
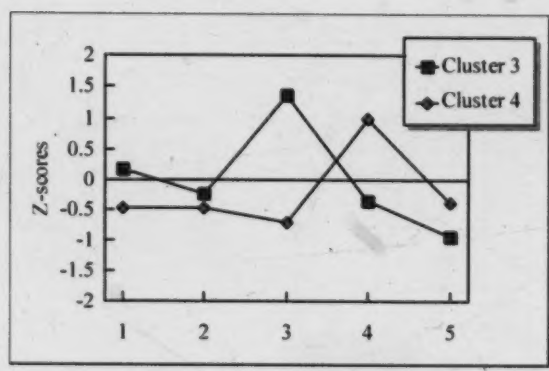
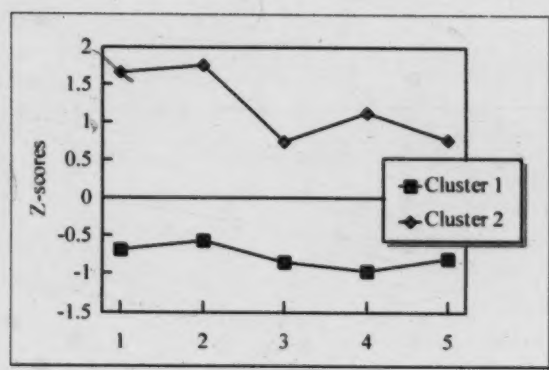
Overall, replication of the previously reported patterns (in terms of general factor structures and individual factors composition) lends credibility to the 5-factor solution that emerged in this study and makes it acceptable for subsequent data examinations.

Cluster analysis of leisure constraints and selection of the "best" cluster solution

The new composite constraint variables, or computed five factor-based dimensions, were used as the basis for conducting cluster analysis. Initially three through seven cluster sets were produced and examined (Figure 4.6; Appendix C).

Due to the fact that constrained individuals comprised only a portion of the sample (68.6% of respondents identified themselves as constrained in their leisure), almost all cluster solutions were not satisfactory from the standpoint of cluster size. The six- and seven-cluster solutions were dismissed as potential candidates for use in further analysis because of unacceptably uneven case distributions. (The first one contained one cluster of 18 respondents and another of only 7 cases; the second one contained four clusters ranging from 2 to 17 cases).

The 3-cluster set was the only one completely satisfactory from the cluster size point (the first selection criterion), but was not quite acceptable because of its too general character and lack of differentiation among the groups of constrained individuals. (Such differentiation is important in order to identify the links between leisure constraints and other variables in subsequent portions of the research). The cluster solution consisted of a group of people who did not have intensive perception of constraints, or relatively unconstrained individuals, a large, exclusively time-constrained group, and a group of people "evenly" constrained in almost any way, except for the time dimension.



Factor-Based Dimensions:

- 1 = Accessibility/Isolation
- 2 = Knowledge
- 3 = Skills/Social Factors
- 4 = Costs
- 5 = Time

- Cluster 1 = 57 cases
- Cluster 2 = 11 cases
- Cluster 3 = 23 cases
- Cluster 4 = 53 cases
- Cluster 5 = 59 cases

Figure 4.6. Leisure Constraints: 5-Cluster Solution

The 4-cluster solution was more satisfactory in terms of the "intuitive sense" criterion. In addition to the "relatively unconstrained" cluster, it differentiated between time and costs-constrained individuals (which, similar to Jackson's [1993] finding, formed two separate clusters). An important feature of this cluster solution was a group of respondents who perceived all types of constraints, but were distinguished by experiencing impediments related to lack of accessibility and isolation, lack of knowledge, skills, and also social constraints. (This group of people scored especially high on the *Accessibility/Isolation, Knowledge, and Skills/Social Factors* dimensions). Using this cluster of individuals, whose leisure was affected greatly by intrapersonal constraints, would be an asset for further analyses aimed at finding out how different types of constraints interfere with people's leisure. However, this cluster accounted for only 14 respondents and was not acceptable according to the size criterion.

The 5-cluster set also was not entirely satisfactory in terms of cluster size, but it provided the option of "making it more suitable" for using in further analyses (Figure 4.6). This cluster solution was similar in its structure to the 4-factor set. It contained a "relatively unconstrained" group of individuals and two groups of people who were inhibited exclusively by time or costs. It also accommodated a group of generally highly constrained respondents who, however, were especially distinguished by experiencing lack of accessibility, isolation and knowledge-induced inhibitors (Cluster 2). Individuals constrained by lack of skills and social factors formed a separate, unidimensional cluster (Cluster 3). Taken individually, the last two clusters (Cluster 2 and 3) would not be acceptable for future statistical examination (the first one contained only 11 people, and the second one accounted for 23 respondents). However, if merged together, they would have formed a new cluster of a modest but acceptable size which would represent a group of individuals distinguished by an array of intrapersonal and interpersonal constraints (a cluster which is very similar to the one emerged in the 4-cluster solution). As noted before, this group of individuals, although small in number, might prove to be important for uncovering how different types of constraints affect leisure at later stages of the study.

Therefore, a "modified five-cluster solution" was selected for use in further analysis (the Cluster 2 and 3 were combined to form a new, single cluster). The components of the resulting modified cluster set were labelled as follows: *Relatively Unconstrained, Isolation/Knowledge/Personal Reasons, Costs, and Time.*

Further Manipulations of the Selected Cluster Sets

The selected "final" cluster sets were used in further analyses (Chapters 5 through 8) to accomplish the following major tasks. First, the study intended to uncover general associations among different types of leisure activities, anticipated benefits, environmental attitudes, and constraints. Second, the obtained cluster combinations (except for the clusters of environmental attitudes) could be modified to form even more generalized variables, which would provide additional insights into the relationships among different aspects of leisure. For example, breaking leisure participants into generally "active" and "inactive" groups, and constrained respondents into "intensely constrained" versus "relatively unconstrained" groups would be useful for the investigation of how leisure constraints might affect participation. Likewise, extracting groups of "optimistic" individuals who were very enthusiastic about potential leisure benefits and not motivated, "pessimistic," people would be instrumental for exploring how leisure motivations interfere with leisure participation and perception of and reaction to constraints.

To accomplish these tasks, the cluster sets of leisure activities, anticipated benefits, and constraints were subjected to the following transformations. Firstly, "truncated" versions of the cluster sets reflecting different "types" of leisure activities, anticipated benefits, and constraints were created by removing the clusters which scored consistently low on all of the factor-based dimensions. For example, the "inactive" cluster was removed from the 3-cluster set of leisure activities. Likewise, Cluster 3 ("pessimists") was removed from the 4-cluster set of anticipated leisure benefits, and Cluster 1 ("relatively unconstrained" individuals) was dropped from the clusters of constraints. These "truncated" versions of cluster sets were used in subsequent statistical analyses as generalized variables representative of different participation styles, patterns of anticipated leisure benefits, and profiles of constrained leisure.

Secondly, new sets of variables at the highest level of generality were created based on the available cluster solutions. In order to generate the clusters reflecting the overall intensity of leisure participation, anticipated benefits, and constraints experienced, all clusters scoring above average on any of the factor-based dimensions were merged into a single cluster in each of the cluster solutions. The resulting clusters of generally active leisure participants, people of an "optimistic" disposition toward anticipated leisure benefits, and relatively intensively constrained individuals formed 2-cluster combinations with their "opposites" who scored consistently below average in all cluster combinations ("inactives," "pessimists," and "relatively unconstrained" people).

CHAPTER 5

ANTICIPATED LEISURE BENEFITS, MOTIVATIONS AND PARTICIPATION

Objectives of the Chapter

As discussed in the Background of the thesis, the research related to leisure benefits is marked by a considerable theoretical, conceptual and topical diversity. However, some areas still remain unexplored and questions unanswered. First, leisure scholars face the considerable challenges of eliminating theoretical and conceptual confusion and of integrating quite varied findings in the field into a meaningful body of research (Philipp, 1997). A recently developed comprehensive and logically coherent conceptual framework of leisure benefits (Driver & Bruns, 1999) provides a solid base for systematic research in this area. Second, not enough research has been devoted to extending analysis beyond leisure benefits, connecting them to other leisure-related variables, and offering explanations of these associations. These types of studies could make a substantial input into the integration of leisure research and to the building of general theory, which would enhance understanding of leisure experience and behaviour.

The study reported here attempts to address some of these issues, with special emphasis on exploring leisure benefits and other motivation-related variables as means for connecting to other aspects of leisure. To fulfill this integrating function, this study (unlike many other works in the field) does not focus on specific leisure benefits, types of activity involvement, or selected groups of people. On the contrary, its purpose is to use "generic" data, which would allow the drawing of general conclusions about leisure patterns, including perceived leisure benefits and their behavioural implications.

Due to a number of reasons outlined in the Background to the Study, the concept of leisure benefits was conceived in the present study as a specific satisfying psychological or other experience (or outcome) and was confined to *anticipated benefits*, thereby emphasizing "motivational" aspects. While focusing on anticipated leisure benefits as a major variable highlighting different facets of leisure experience, other factors related to leisure motivations (a variable measuring a value placed on leisure) were introduced into the analysis in order to enhance the motivational component of the study.

This chapter explores the relative importance of anticipated leisure benefits to people, the relations of a general value attached by people to leisure and their leisure benefit expectations to the activity involvement, as well as the associations among anticipated leisure benefits and other

aspects of leisure motivation. These specific targets constitute a part of the more general goals of the study: to explore how leisure benefits fit into a broader picture of leisure decision-making and behaviour. The ensuing chapters proceed with analyses of benefit linkages to other aspects of leisure, including environmental attitudes, leisure constraints, and constraint negotiation process.

The following questions were addressed in the chapter: (1) How important is leisure for people, and what are the most and least frequently and intensely anticipated leisure benefits? (2) What social and demographic variations occur in anticipated leisure benefits and other motivation-related variables? (3) How are the motivation-related variables (anticipated leisure benefits and perceived importance of having leisure) related to each other? (4) How do these variables relate to the intensity and character of leisure participation and vice versa? (5) Do the expected leisure benefits and general value placed on leisure have any effect on the desired leisure outcomes (ability to fill leisure time with wanted activities)?

The following propositions were formulated and tested with respect to some of these questions and considering the results of past research:

1. Different aspects of leisure motivation should be positively linked to each other as they reflect a "positive side" of leisure behaviour, indicating willingness to participate in leisure. Anticipated leisure benefits should be connected positively to other aspects of leisure motivation, such as the general importance attached by people to their leisure.
2. Different aspects of leisure motivation, including anticipated benefits, their overall strength, and the perceived importance of leisure are positively associated with the intensity of leisure participation.
3. Some leisure activities differentiate in the types of benefits generated.

General Patterns in the Data

Importance attached by people to their leisure

The findings amply demonstrated that the majority of respondents usually perceived leisure as an important component of their lives (as the result of answering a "yes/no" question about perceived importance of having leisure and recreation time): for 52.6% of them, having a certain amount of leisure time was "very important," while for 35.1% it was "important," for a combined total of 87.7%. Only 11.9% described leisure as "somewhat important," and only one person checked "not at all important." Nevertheless, only slightly more than half of them felt confident that they did what they wanted in their free time, with 50% being able to engage in desirable

pursuits "most of the time" and only 5.8% feeling that they did it "always." A further 42.5% of respondents replied "some of the time," and 1.7% said they "never" had the leisure they wanted.

Overall intensity of leisure benefit anticipation

Breaking respondents who reported leisure benefits into two clusters according to the overall strength of benefit expectation produced a virtually new motivational variable reflecting general beliefs in beneficial consequences of leisure. The data demonstrated that the vast majority of respondents held a positive attitude toward leisure. People who scored high on the overall benefit expectation (and, hence, were generally more enthusiastic about leisure benefits) were labelled "optimists" and accounted for 79.4% of all respondents. The group of "pessimists" who yielded low scores and were less positive about the potential advantages of leisure contained only 57 out of 296 respondents (19.3%).

Individual leisure benefits

The importance of individual anticipated leisure benefits can be assessed in a number of ways. The cumulative percentage responding "important" and "very important" was used to determine the relative importance of specific benefits. Mean scores were also assessed to form a complementary judgement about the intensity of benefit expectation.

Overall, almost everyone in the sample expected to benefit from their leisure. Out of 296 respondents making up the sample, 292 or 98.6% reported they anticipated some sort of leisure benefits (Table 5.1). Ranking at the top of the list were getting (mental/physical) relaxation (83.9% of individuals who anticipated any leisure benefits), having fun (82.2%), and physical health and exercise (81.2%), followed by more specific benefits, such as enjoying nature (70.9%), being with family (70.9%), and being with friends (70.2%). Seven other items, which were mentioned with above-average (higher than 50%) frequency, evolved around changing and escaping routine ("To do something different from work/home routine," "To be free to do what I really want," "To do things at my own pace," and "To escape daily routine," as well as getting tranquillity and peace, being in the company of people sharing similar values and interests, and learning and exploring things. Eighteen items of roughly intermediate frequency (ranging from 49.7% to 22.9%) can be broken down into two groups of benefits, which can be described as "self-development" and getting privacy and/or solitude. The first group of items involved learning about different places, seeking intellectual and aesthetic experiences, developing new skills and

Table 5.1
Frequency Data for Anticipated Leisure Benefits

Benefit Items	Number of People for Whom Listed Leisure Benefits Were "Important" or "Very Important"	% of Individuals Who Anticipated Leisure Benefits	% of the Sample	Mean Benefit Scores
22. To relax (mentally/physically)	245	83.9	82.8	3.26
19. To have fun	240	82.2	81.1	3.23
2. For physical health and exercise	237	81.2	80.1	3.27
9. To enjoy nature	207	70.9	69.9	3.04
25. To be with my family	207	70.9	69.9	2.93
26. To be with my friends	205	70.2	69.3	2.83
28. To do something different from work/home routine	192	65.8	64.9	2.78
24. To get tranquility/peace	187	64.0	63.2	2.84
20. To be with people having similar values and interests	183	62.7	61.8	2.80
34. To be free to do what I really want	182	62.3	61.5	2.76
32. To do things at my own pace	178	61.0	60.1	2.71
27. To learn and explore things	158	54.1	53.4	2.57
1. To escape daily routine (work duties, home chores, etc.)	148	50.7	50.0	2.49
5. To learn about different places	145	49.7	49.0	2.44
6. To escape crowds and noise	141	48.3	47.6	2.47
11. To seek intellectual stimulation and aesthetic experiences	138	47.3	46.6	2.43
3. To develop new skills and abilities	135	46.2	45.6	2.41
21. To learn about nature	133	45.5	44.9	2.41
36. To seek physical stimulation	133	45.5	44.9	2.37
30. To use my skills and talents	120	41.1	40.5	2.29
37. To be creative	120	41.1	40.5	2.3
Total Number of Individuals Who Anticipated Benefits	292	100	98.6	

Table 5.1 (Continued)

Benefit Items	Number of People for Whom Listed Leisure Benefits Were "Important" or "Very Important"	% of Individuals Who Anticipated Leisure Benefits	% of the Sample	Mean Benefit Scores
33. To seek solitude	115	39.4	38.9	2.23
7. To keep busy	107	36.6	36.1	2.13
23. To test my competence/skills	104	35.6	35.1	2.12
12. To meet new people	98	33.6	33.1	2.12
14. To slow down	94	32.2	31.8	2.03
16. To get privacy	83	28.4	28.0	1.97
34. To seek excitement	80	27.4	27.0	1.93
8. To teach/Share my skills with others	70	24.0	23.6	1.86
35. To meditate	68	23.3	23.0	1.82
18. To contribute to my community	67	22.9	22.6	1.95
4. To observe other people	49	16.8	16.6	1.68
17. To test myself in risky/challenging situations	41	14.0	13.9	1.58
38. To lead others	39	13.4	13.2	1.51
13. To meet people of the opposite sex	24	8.2	8.1	1.28
15. To compete with others	23	7.9	7.8	1.34
10. To be away from my family	14	4.8	4.7	1.33
29. To get social recognition	14	4.8	4.7	1.29
Total Number of Individuals Who Anticipated Benefits	292	100	98.6	

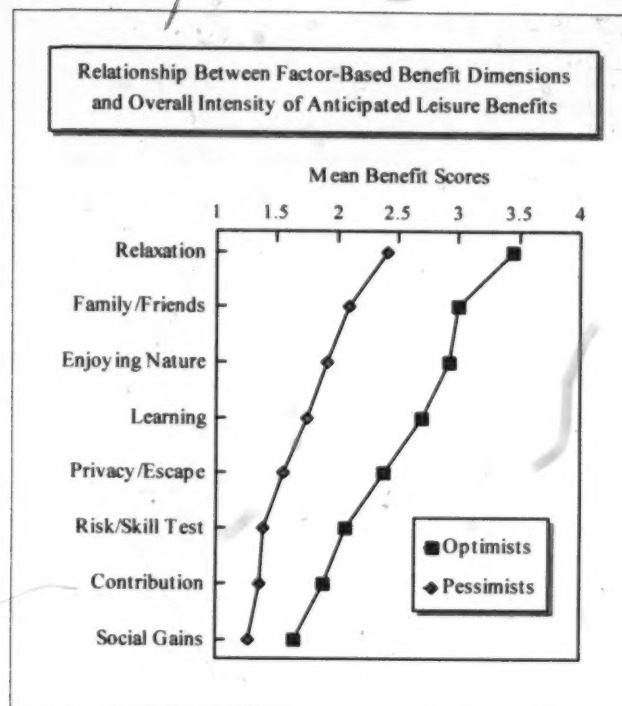
abilities, learning about nature, as well as using/testing one's skills and creativity. The second group of benefits comprised escaping crowds and noise, seeking solitude, slowing down, getting privacy, and meditation. The least frequently mentioned benefits ranged from observing other people (16.8%) to being away from family and getting social recognition (4.8% each).

Mean benefit scores reveal the relative intensity with which individual benefits were anticipated. Overall, the mean scores uncover quite strong awareness of benefits that can accrue as a result of leisure participation. Given that the benefit measurement ranged from 1 = "not important," through 2 = "somewhat important" and 3 = "important," to 4 = "very important," the overwhelming majority of benefit items fell within the "very important" and "somewhat important" score ranges. The descending sequence of the mean scores generally followed the frequencies of benefits, with only slight deviations. Four benefits, including relaxation, having fun, physical health and exercise, and enjoying nature were the most intensely anticipated leisure outcomes among the sample (scoring in-between "very important" and "important").

The ranks of leisure benefits emerged in this study bear similarity to the mean scores on "preferred psychological outcomes" obtained by Driver and Cooksey (1980) in a study involving six outdoor recreation activities. The ten top psychological outcomes from their 24-item scale comprise items such as "Physical rest," "Escape physical pressures," and "Slow down mentally," reflecting mental and physical relaxation, along with "Enjoy nature," "Escape daily routines," "Tranquillity - privacy," "Be with other people," and "Exercise - physical fitness." The "benefit themes" reflected in the 10 top-scoring benefits listed in Table 5.1 bear close resemblance to these items. Although juxtaposition of the two sets of results is problematic due to the differences in the measurement scales and range of related activities, it could be argued that similarities in findings, which emerged in spite of different research designs and methods, might be an indication of common patterns in perceived beneficial outcomes of leisure.

Generalized patterns based on the factor-derived dimensions of benefits

The graphs presented in Figure 5.1 provide both additional insights and also a summary of the previously outlined detailed descriptions of general patterns in the data. In addition they represent a first step toward a more profound examination of the associations in the data. The graph depicts a generalized rank-order of anticipated benefits based on their factor-derived dimensions (used as the dependent variables in the one-way analyses of variance). It also provides a validation for the clustering of respondents into "optimists" and "pessimists," a classification that was widely used in



All differences are statistically significant.

Figure 5.1

the subsequent data analyses. (The two clusters on the graph are clearly differentiated, with the differences in mean scores being significant and in the expected direction: the “pessimists” consistently having the lowest mean scores, and the “optimists” scoring the highest).

The graph confirms that benefits related to relaxation were the most important to both the “optimists” and “pessimists.” Spending time with family and friends and enjoying nature rated second, being “important” for the optimists and still scoring “somewhat important” for the pessimists. Benefits comprising the *Contribution* and *Social Gains* dimensions were the least appreciated ones, scoring lower than “somewhat important” even for the optimists. The *Learning*, *Privacy/Escape*, and *Risk/Skill Test* dimensions were of intermediate importance.

Socio-Demographic Variations in Anticipated Leisure Benefits

Age-based variations

The data on anticipated benefits did not show much variation according to the socio-demographic categories (Table 5.2). The majority of statistically significant associations were age-related. The perceived importance of having some leisure showed a steady decline with advancing age. While as few as 1.9% of people aged 35 or younger declared that for them "having a certain amount of leisure and recreation time" was only "somewhat" or even "not at all" important, one quarter (24.4%) of respondents who were 56 or older showed little or no concern about availability of leisure. A relatively high percentage of the oldest respondents (42.2%) described their leisure as merely "important," compared to only 24.5% of the youngest age-group. At the same time, 73.6% of the latter considered their leisure to be "very important," whereas only 33.3% of people who were 56 or older valued their leisure that highly. This is a reasonable outcome, assuming that older people who do not have young children and many of whom could be retired, should struggle less for the availability of free time in order to fulfill their leisure aspirations than younger individuals who usually face more family and work commitments. A negative link between the strength of motivation and advanced age is consistent with the findings reported by Carroll and Alexandris (1997), although motivation was measured differently in their study.

Less conspicuous, but still statistically significant differences emerged when the relative intensity of leisure benefit anticipation was analyzed. Although "optimists," who shared positive leisure outlooks, prevailed within all age-groups (exceeding 70%), their proportion was somewhat higher among younger respondents compared to their older counterparts.

As far as the nature of anticipated benefits is concerned, specific analyses involving 8 factor-based dimensions of benefits showed some meaningful associations (Table 5.2). They include:

- The group of benefits involving relaxation was intensely anticipated by all age-groups, all of which scored the highest on this dimension (means hovering around the "important" mark and up). Nevertheless, getting a chance to relax was especially vital for the respondents aged 45 and under, whereas individuals who were 56 or older had mean benefit scores indicating significantly less intense anticipation of relaxation as the result of their leisure.
- Getting privacy and escaping various day-to-day routines and commitments were the most important for the family and work-stressed middle-age respondents (the 36-45 and 46-55 age-

Table 5.2
Variations in Leisure Motivation Variables According to Age, Gender and Income

Motivation Variables:	Age				Gender		Household Income (\$)			
	35 or less	36-45	46-55	56 or more	Male	Female	30,000 or under	30,001-50,000	50,001-70,000	Over 70,000
	%	%	%	%	%	%	%	%	%	%
<i>Importance of Having Leisure Time</i>										
Somewhat/Not important	1.9	6.2	10.4	24.4	15.0	10.6	25.6	10.4	9.4	6.1
Important	24.5	29.2	40.3	42.2	31.9	37.1	30.2	50.7	32.1	25.3
Very important	73.6	64.6	49.3	33.3	53.1	52.4	44.2	38.8	58.5	68.7
Totals (n)	(53)	(65)	(67)	(90)	(113)	(170)	(43)	(67)	(53)	(99)
Chi-square; d.f.; p	34.44; 6; p = 0.000				1.62; 2; n.s.		26.18; 6; p = 0.000			
<i>Intensity of Anticipated Leisure Benefits</i> (Clusters of Benefits)										
Optimists	83.3	89.6	80.9	70.7	76.9	83.2	69.8	74.6	85.7	86.1
Pessimists	16.7	10.4	19.1	29.3	23.1	16.8	30.2	25.4	14.3	13.9
Totals (n)	(54)	(67)	(68)	(92)	(117)	(173)	(43)	(67)	(56)	(101)
Chi-square; d.f.; p	9.28; 3; p = 0.026				1.79; 1; n.s.		7.65; 3; p = 0.054			

groups). This was less of an issue for the youngest individuals aged 35 or less and especially for the oldest age-group (56 or older).

- A similar pattern of relatively low importance for senior people evolved for taking risk and skill testing, which were significantly more important for people aged 45 or younger. This group of relatively young respondents scored higher than "somewhat important" on the corresponding dimension, whereas older individuals falling into the 46-55 and 56 and over age-groups scored below this mark.
- At the same time, the older age-groups (starting from age of 46 and up) revealed higher anticipation of nature-induced benefits (scored higher on the group of leisure benefits composing *Enjoying Nature* dimension than people aged 45 and under).
- Benefits related to learning, enjoying company of family and/or friends and contributing to community (the *Learning*, *Family/Friends*, and *Contribution* dimensions) were about equally important for all age-groups. While the youngest people (aged 35 or less) showed a tendency toward higher valuation of social gains compared to other age-groups, the differences were not statistically significant.

More generalized analyses of age differences by the clusters of individuals, demarcated by different leisure expectations, did not yield significant differences (Table 5.2).

Gender-based variations

There were no significant general gender-based variations in any of the benefit and motivation variables. However, more specific tests based on the benefit dimensions showed some significant associations. Anticipating adventures related to taking risk and testing skills was apparently more characteristic of men. At the same time, anticipating benefits of learning as well as enjoying nature was slightly more typical for females.

Income-based variations

Statistical evidence suggested that individuals with higher incomes tended to place a higher value on their leisure. More than 68% of people whose household income exceeded \$70,001 characterised their leisure as "very important," compared to 44.2% of respondents from the least affluent households (under \$30,000) and 38.8% of people with household income ranging from \$30,001 to \$50,000. Only 6.1% of the people having household incomes of \$70,001 and higher indicated that for them having some leisure was just "somewhat important" or "not at all

important," while over a quarter (25.6%) of individuals from the least affluent group of households (\$30,000 and under) expressed low appreciation of having some time dedicated to leisure.

No statistically significant income-based variations were observed in the overall intensity and character of anticipated benefits and the character of expected benefits, with the exception of the *Relaxation* dimension. Although an opportunity to relax was the most intensely anticipated type of leisure outcome in all income-groups compared to other benefit types, it was apparently more important for the wealthier people. Relatively affluent individuals (household incomes of \$50,001 and up) also tended to be somewhat more "optimistic" in the overall benefit anticipation (85.7% to 86.1% of them were classified as "optimists"), compared to inhabitants of the poorest households (69.8%) (non-significant data).

Associations Among the Motivation-Related Variables

The motivational aspects of leisure considered in this study included the overall importance attached by people to their leisure, a variable measuring the overall strength of anticipated benefits (reflects an enthusiastic, "optimistic" disposition toward positive effects of leisure versus a "pessimistic" attitude), and variety of specific leisure benefits.

The data in Table 5.3 show that the intensity of leisure benefit anticipation was strongly associated with the overall perceived importance of leisure. The vast majority of people who considered their leisure to be "very important" fell into the "optimistic" category (91.9%). The

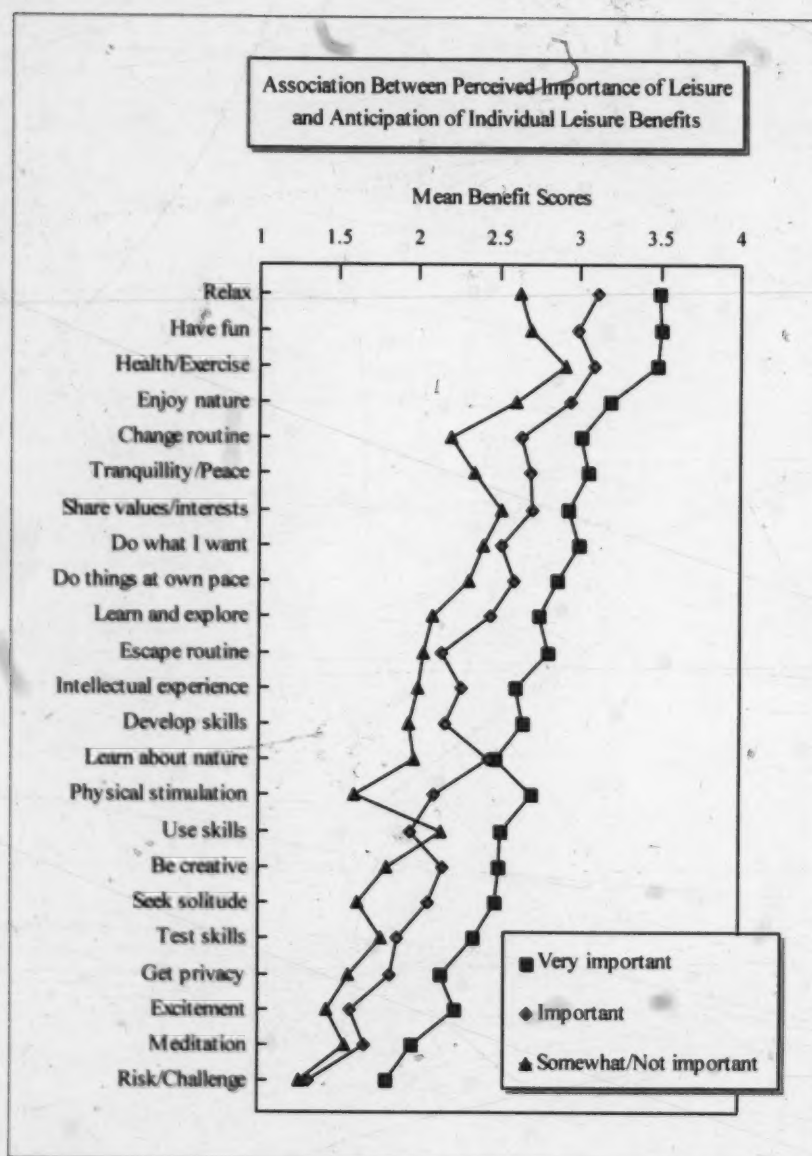
Table 5.3
Intensity of Leisure Benefit Anticipation Depending on Importance Placed on Leisure

	Importance of Having Leisure Time		
	Very important %	Important %	Somewhat/Not at all important %
<i>Intensity of Anticipated Leisure Benefits</i>			
Optimists	91.9	75.0	45.7
Pessimists	8.1	25.0	54.3
Total (n)	(149)	(100)	(35)
Chi-square = 40.99; d.f. = 2; p = 0.000			

percentage of optimists was also high among the people who thought that having leisure was "important" (75.0%), compared to 45.7% of optimists among those who underrated their leisure. In contrast, only 8.1% of those who rated their leisure as "very important" were pessimists, but their proportion was as high as 54.3% in the group of individuals who were convinced that it was merely "somewhat important" or "not at all important" to have some leisure.

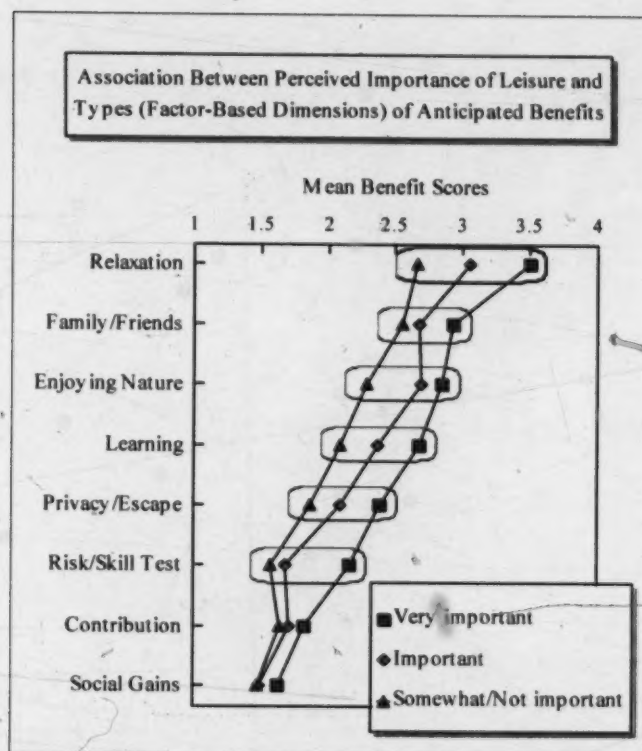
Figure 5.2 (one-way analyses of variance) provides a more specific picture of the relationships between anticipated leisure benefits and the value placed on leisure. Considering a large number of specific benefit items (38), only statistically significant results ($p < 0.050$) were plotted on the graph. Overall, statistically significant associations were observed on 22 occasions (57.9% of the 38 original questionnaire items). The significant results confirmed a consistent positive relationship between perceived importance of having some leisure and various anticipated benefits: in the majority of instances those respondents who declared their leisure to be "very important" had higher mean benefit scores than individuals for whom having some leisure was simply "important" or especially "somewhat" and "not important." Substantial overall differences in mean scores occurred in cases such as relaxing, having fun, changing or escaping routine, getting physical stimulation, seeking solitude, and getting excitement. At the same time, the *type of association* varied from case to case. For example, the people who considered their leisure to be "very important" and merely "important" anticipated with an equal intensity the benefits of learning about nature. Both the group of individuals who did not place much value on their leisure ("somewhat/not important") and the group of people for whom leisure was "important" showed equally low appreciation of taking risk and/or having challenge, whereas this type of benefit was anticipated with higher intensity by the respondents for whom leisure was "very important." These observations, as well as the fact that only 57.5% of the benefits from the original scale showed significant relationships with the perceived importance of leisure, suggest that the relationship under question might vary with the type of anticipated benefit.

Figure 5.3 represents a more general outlook on the mentioned associations, based on the dimensions of anticipated benefits, which were extracted by running factor analysis on the individual benefit items. The majority of the associations turned out to be significant, indicating that the relationship under question is a common occurrence in the data. At the same time, benefits related to contributing to community and various social gains showed no relationship to



All differences are statistically significant.

Figure 5.2



Circled items indicate statistically significant results.

Figure 5.3

the perceived importance of leisure, providing, thereby, an additional support to the inference that the relationships may vary depending on the character of anticipated benefits.

Relationship Between Perceived Importance of Leisure and Leisure Participation

Given that only a small number of respondents thought that "having a certain amount of leisure and recreation time" was merely "somewhat important" or "not at all important," the analyses showing the links between the perceived importance of leisure and overall intensity and character of leisure involvement were confined to the comparison of people who felt that their leisure was "important" or "very important" (Table 5.4).

Table 5.4
Leisure Participation Depending on Perceived Importance of Leisure

	Importance of Having Leisure Time	
	Very important %	Important %
<i>1. Intensity of Participation (Clusters of Activities)</i>		
Active participants	58.7	40.0
Inactives	41.3	60.0
Totals (n)	(150)	(100)
<i>2. Character of Leisure Involvement (Clusters of Activities)</i>		
Physically/Socially Active	47.7	17.5
Intellectual/Hobbies/Home-Based	52.3	82.5
Totals (n)	(88)	(40)
<i>3. Frequency of Involvement in Desired Leisure Pursuits</i>		
Most of the time/Always	61.3	49.0
Some of the time/Never	38.7	51.0
Totals (n)	(150)	(100)
1. Chi-square = 8.37; d.f. = 1; p = 0.004		
2. Chi-square = 10.63; d.f. = 1; p = 0.001		
3. Chi-square = 3.71; d.f. = 1; p = 0.054		

The data indicate the presence of a significant linkage between the value placed on leisure and both the intensity and type of leisure participation. A higher percentage of the people who thought of their leisure as being "very important" (58.7%) were also actively engaged in it, compared to the proportion of active participants among those who declared it to be simply "important" (40.0%). The majority of the respondents who described an opportunity to have some leisurely time as being just "important" to them (60%) fell in the "inactive" group, while a lower percentage of people who assessed their leisure as "very important" were classified in the inactive category (41.3%). There was also an indication that highly valuing one's leisure was positively linked with the engagement in physically and socially active pursuits. Almost half of the people (47.7%) who

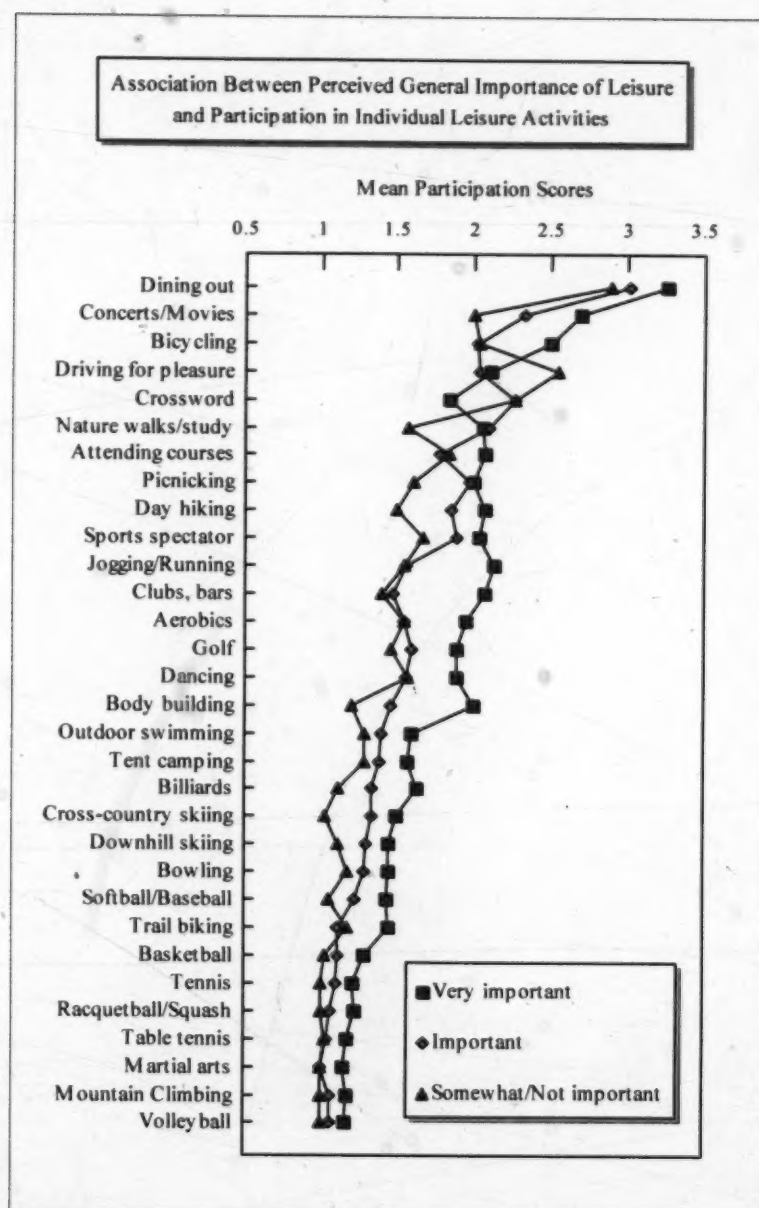
indicated that their leisure was "very important" pursued physically and socially intense leisure, compared to only 17.5% of those who thought that it was merely "important." The representatives of the latter group mostly engaged in relatively "passive" and possibly more "introverted" activities (*Intellectual/Hobbies/Home-Based* cluster; 82.5%), compared to the people who valued their leisure more (evaluated it as "very important").

Figure 5.4 shows the associations similar to those described in Table 5.4 (between perceived importance of leisure and leisure participation), but at the highest level of detail (analyses of variance involving specific activities). Taking into account that the original questionnaire list of leisure activities was very extensive and contained 77 specific items, only statistically significant relationships (24 cases with $p < 0.050$, or 31.2%) were graphed.

The data indicated that almost all associations were positive, although mostly not large. The highest ("very important") value placed on leisure was associated with higher mean participation scores in all displayed activities except for driving for pleasure and solving crossword puzzles, which showed a negative relationship. Consistent with the data in Table 5.4, indicating that participants in physically and socially intensive activities tended to value their leisure more highly than people pursuing activities of different character (intellectual, hobbies or home-based), the largest variations in mean participation scores occurred for activities such as jogging and running, body building, going to concerts and/or movies, and socializing at clubs and bars.

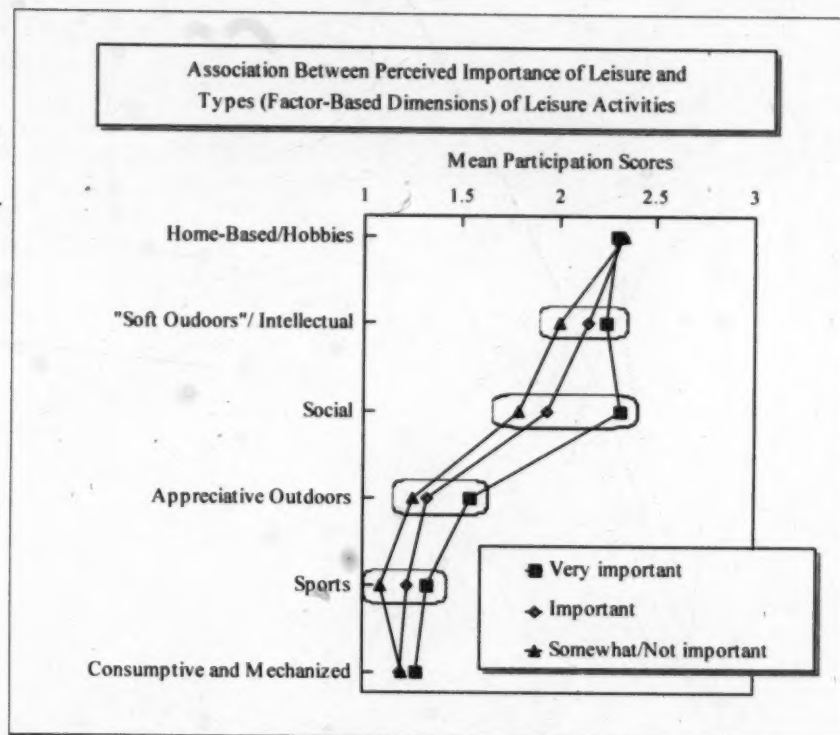
Figure 5.5 provides a more generalized approach to the described associations (analyses of variance involving factor-based dimensions of activities). Four out of six cases turned out to be statistically significant and involved the "*Soft Outdoors*" and *Intellectual, Social, and Appreciative Outdoors* dimensions. In all instances the people for whom having some leisure was "very important" had higher mean participation scores than those for whom it was only "important" or "somewhat" and "not important." Similar to the results involving individual activity items (Figure 5.4), the synthesized data displayed in Figure 5.5 indicates that the significance and strength of the relationship under question may vary depending on the type of leisure pursuit.

The ability to pursue wanted leisure showed an almost significant ($p = 0.054$), although not very tangible, variation with the overall importance attached by respondents to leisure (Table 5.4). Overall, the tendencies in the data were "in favour" of those who declared their leisure to be "very important." More than sixty per cent of them managed to do what they wanted "most of the time" or "always" for leisure compared to 49.0% of people for whom leisure was just "important."



All differences are statistically significant.

Figure 5.4



Circled items indicate statistically significant results.

Figure 5.5

Conversely, a smaller percentage (38.7%) of the first group was less successful in getting involved in wanted leisure (pursued desired activities only "some of the time" or "never") than those who were less concerned about having some leisure (51.0%).

Relationship Between Anticipated Benefits and Leisure Participation

The decision to use benefits as the independent variables in the chi-square tests, which targeted general links with leisure participation (Tables 5.5 and 5.6), was based on the supposition that in many cases anticipated benefits may stimulate certain activity involvements. For example, if a person wants to become physically fit as the result of his/her recreation, he/she will hardly be watching movies or give preference to solving crossword puzzles. At the same time, trying some leisure pursuits may well trigger further interest and additional leisure expectations (as a result of

"learned benefits"). Therefore, the question about the most appropriate choice of independent and dependent variables remains open, taking into account a very high dynamism of the interaction between the two variables. This problem was addressed in the specific analyses (Figures 5.6 through 5.11), when both the benefit and participation-linked variables were interchangeably used as the independent or dependent components of the statistical tests.

Table 5.5
Overall Intensity of Leisure Participation and Frequency of Involvement in Desired Leisure Depending on Magnitude and Nature of Anticipated Leisure Benefits

	Intensity of Anticipated Leisure Benefits		Nature of Anticipated Leisure Benefits		
	Optimists	Pessimists	Adventurous Socialites	Private Naturalists	Appreciative Optimists
	%	%	%	%	%
<i>Intensity of Leisure Participation</i>					
Active participants	56.2	22.8	48.6	54.0	65.8
Inactives	43.8	77.2	51.4	46.0	34.2
Totals (n)	(235)	(57)	(72)	(87)	(76)
Chi-square	20.43			4.69	
d.f.	1			2	
p	0.000			n.s.	
<i>Involvement in Desired Leisure</i>					
Most of the time	57.0	50.9	55.6	52.9	63.2
Some of the time	43.0	49.1	44.4	47.1	36.8
Totals (n)	(235)	(57)	(72)	(87)	(76)
Chi-square	0.70			1.84	
d.f.	1			2	
p	n.s.			n.s.	

Interrelationship between magnitude of anticipated benefits and intensity of participation

The results of chi-square tests presented in Table 5.5 indicate a strong positive relationship between the overall magnitude of anticipated leisure benefits and intensity of leisure participation. More than half of the people who displayed a positive, optimistic attitude towards potential leisure benefits (56.2%) were also active leisure participants, whereas only 22.8% of the "pessimists" were active in leisure. At the same time, 77.2% of the latter were inert leisure participants, compared to 43.8% of "optimists" in the "inactive" category.

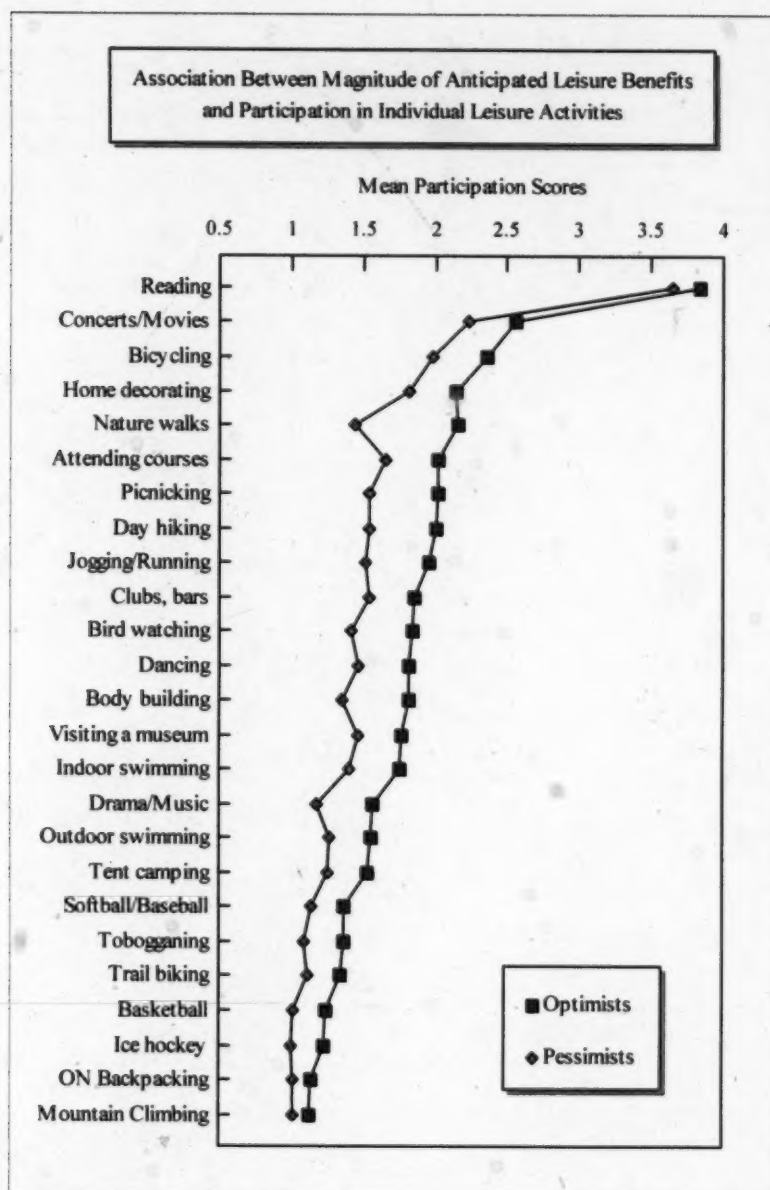
However, there was no evidence to suggest that the intensity of anticipation of potential leisure benefits affected frequency of involvement in *desired* types of leisure activities, indicating the possibility that other factors, such as leisure constraints, may interfere in this association. Also, there was no association at a general level between the nature of anticipated benefits and general leisure outcomes (the overall intensity of participation and frequency of involvement in wanted leisure).

The general inferences summarized above were given more specific consideration in Figures 5.6 and 5.7. The data demonstrated a consistent, positive, and *reciprocal* link between the magnitude of anticipated benefits and intensity of activity participation. Figure 5.6 showed that the "optimists" participated more actively in 25 out of 77 (32.5%) of activities featured in the questionnaire, compared to the "pessimists." Conversely, active involvement in leisure was positively related to expected benefits (half of 38 original benefit items; Figure 5.7).

The data at a medium level of generalization displayed in Figure 5.8 further confirm a dynamic ("bilateral") and consistently positive general association between anticipated leisure benefits and participation. While the vast majority of the activity-benefit associations were statistically significant, (although quite modest), pursuers of consumptive and mechanized recreation showed no variation according to the overall intensity of benefit expectation (Figure 5.8a), and the intensified participation was not related to higher expectation of benefits such as social gains (Figure 5.8b). These observations suggest that the association between leisure benefits and participation may depend (at least on some specific occasions) on both the type of anticipated benefit and character of leisure involvement.

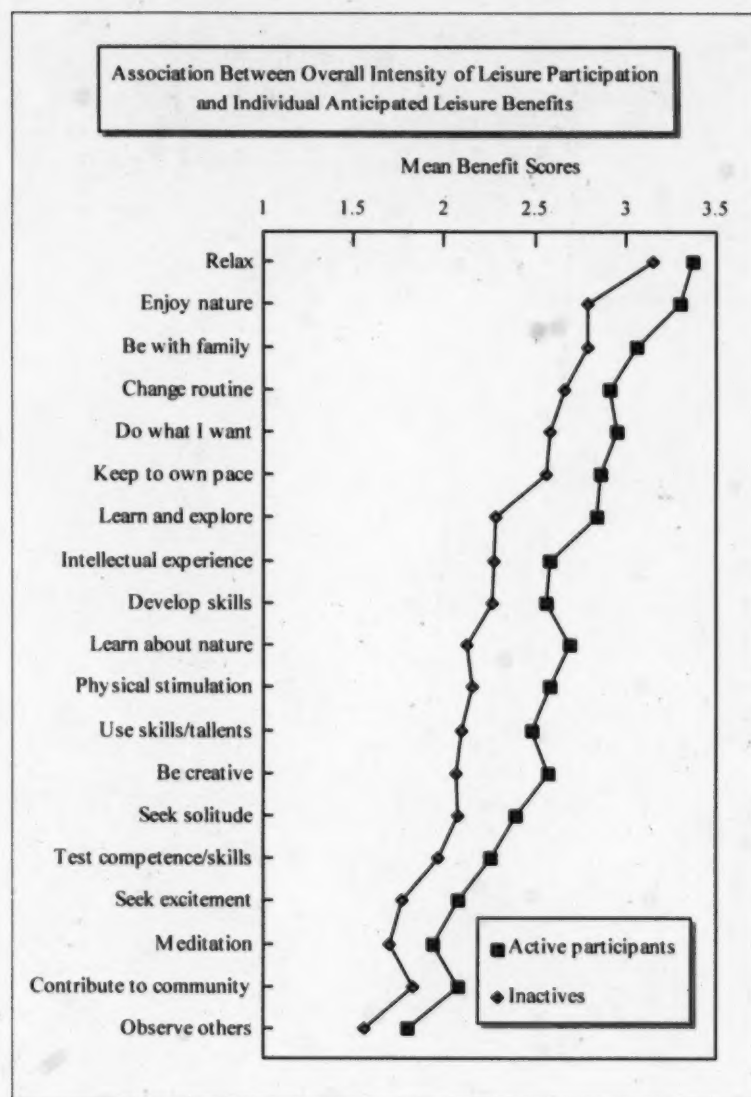
Interrelationship between type of anticipated benefit and character of activity involvement

Table 5.6 and Figures 5.9 through 5.11 illustrate the results of the analyses of relationships between the *patterns* of leisure expectations and activity participation. The purpose of this



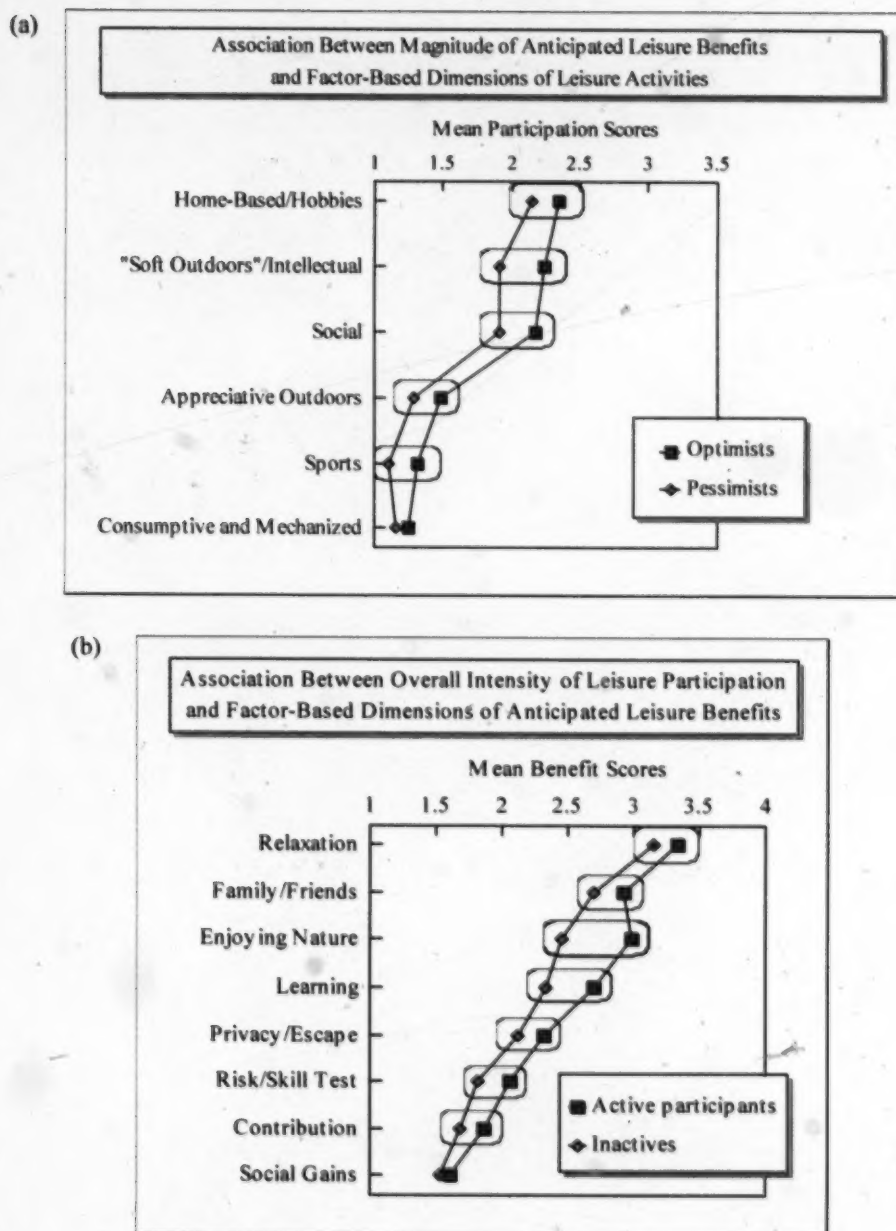
All differences are statistically significant.

Figure 5.6



All differences are statistically significant.

Figure 5.7



Circled items indicate statistically significant results

Figure 5.8

exercise is to further enhance understanding of a complicated nature of leisure choices and the resulting "leisure styles" by answering the following questions: (1) Anticipation of which types of leisure benefits was the most relevant to participation in specific types of activities (was associated with higher participation levels)? and (2) Which groups of activities were *suited the best* for deriving certain benefits, or possessed the best potential "benefit-attaining properties?"

Chi-square tests in Table 5.6 show the discrimination among the clusters of activities according to the clusters of anticipated benefits and represent the most general approach to exploring the relationship between the two variables. There was a strong significant link between the nature of expected benefits and character of activity involvement. For example, 62.9% of people in the *Adventurous Socialites* cluster (those who considered risk and skill-testing, contributing to the community, leadership, or social gains to be the major positive outcomes of their leisure; see the chapter on data aggregation) were engaged in physically and socially intensive leisure (were members of the *Physically and Socially Active* cluster). At the same time, the private naturalists showed not much inclination to pursue these types of activities (19.1%), but instead favoured "soft outdoors,"¹ intellectual pastimes, hobbies, and home-based leisure (80.9%). The last type of leisure was also preferred by the appreciative optimists (68.0%), who were distinguished by anticipation of a very broad spectrum of positive outcomes from their leisure, whereas only 37.1% of adventurous socialites were engaged in intellectual, home-based recreation or hobbies.

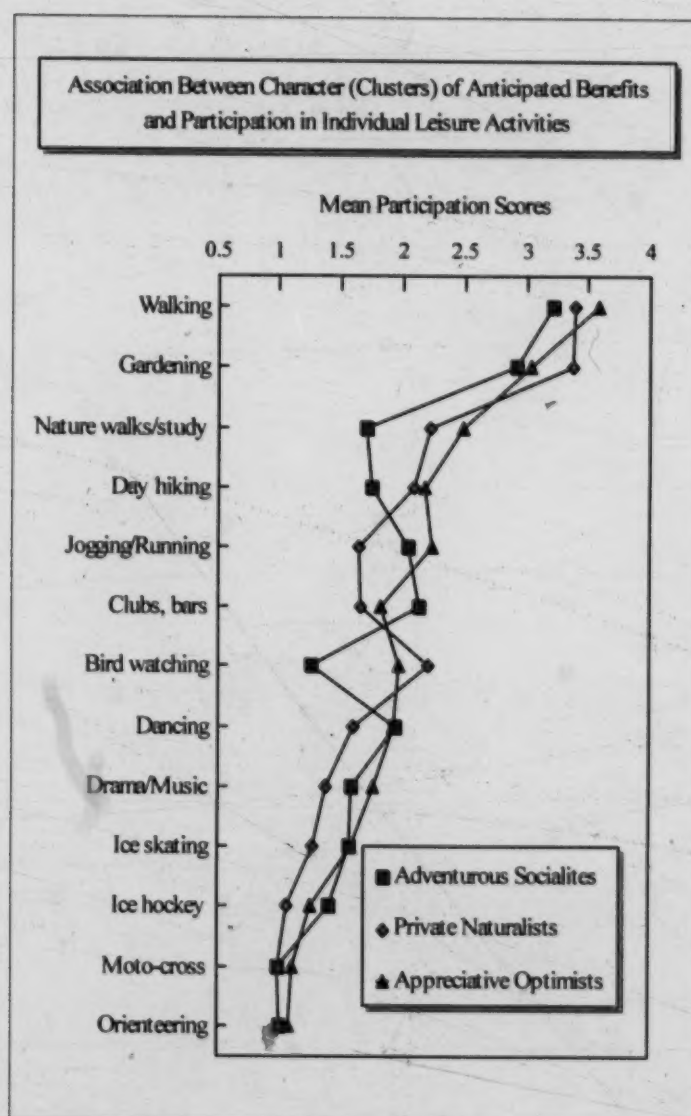
The results of analyses of variance plotted on Figure 5.9 provide a comparison of participation in specific activities depending on the anticipation of different combinations of leisure benefits (membership in one of the three benefit clusters). Overall, only 16.9% or 13 out of the 77 activity-questionnaire items varied significantly according to the character of anticipated benefits ($p < 0.050$, shown on the graph), and the majority of the differences were not large. This suggests that it might be difficult to predict preference for *specific* leisure involvements based on the character of expected benefits. These results are justifiable, considering that one particular activity can be associated with an array of different leisure benefits and a certain type of benefit may also result from different activities, depending on the individual's subjective interpretation of the activity, circumstances under which participation occurs, and other factors.

¹ The *Intellectual/Hobbies/Home-based* cluster of leisure activities also included people pursuing "soft outdoors" (see Chapter 3 on data aggregation).

Table 5.6
Relationship Between Nature of Anticipated Leisure Benefits and Character of Leisure Participation

	Nature of Anticipated Leisure Benefits (Clusters of Benefits)		
	Adventurous Socialites %	Private Naturalists %	Appreciative Optimists %
<i>Character of Leisure Involvements (Clusters of Leisure Activities)</i>			
Physically/ Socially Active	62.9	19.1	32.0
Intellectual/Hobbies/Home Based	37.1	80.9	68.0
Totals (n)	(35)	(47)	(50)
Chi-square		17.17	
d.f.		2	
p		0.000	

At the same time, statistically significant cases plotted on the graph (Figure 5.9) revealed some degree of logical consistency: each type of anticipated benefit was associated with elevated participation levels in distinctive leisure activities, reflecting a peculiar "participation pattern." For example, individuals classified as *Private Naturalists* pursued more intensely such nature-related and also relatively "private" activities as gardening, nature walks, day hiking, and bird watching compared to members of the *Adventurous Socialites* cluster. The latter ones showed somewhat higher involvement in relatively more "energetic" and socially charged activities, such as jogging and/or running, going to clubs and bars, dancing, and sport pursuits (ice skating and hockey). As expected, it was more difficult to distinguish a "leisure participation style" for the cluster of *Appreciative Optimists*, who were the least "specialized" in expected positive leisure outcomes (anticipated a broad variety of benefits from their leisure) and hence, enjoyed relatively high participation (scored first or second) in the majority of the presented individual activities. They, however, showed leisure inclinations somewhat similar to those of the private naturalists, but more "sport-oriented" and "social" in character, being more likely to be engaged in walking, jogging/running, and ice skating. At the same time, they were less likely to garden, compared to the private naturalists, or visit clubs and bars, compared to the adventurous socialites.



All differences are statistically significant.

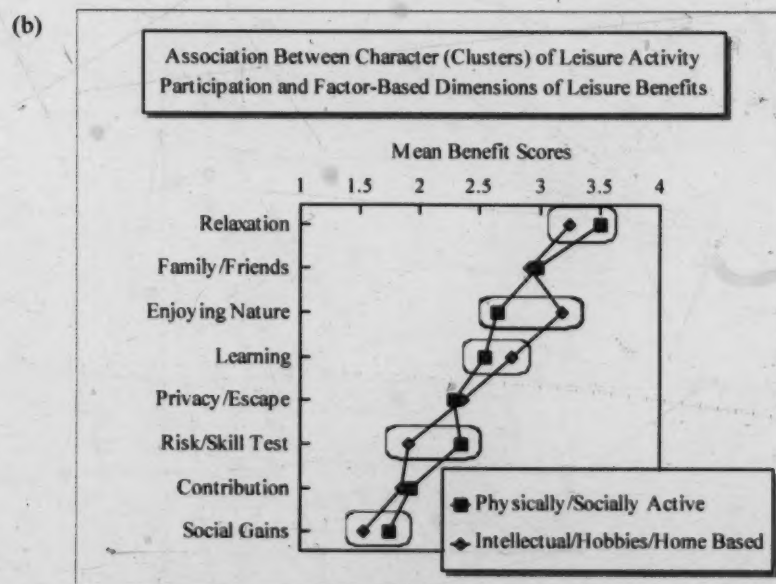
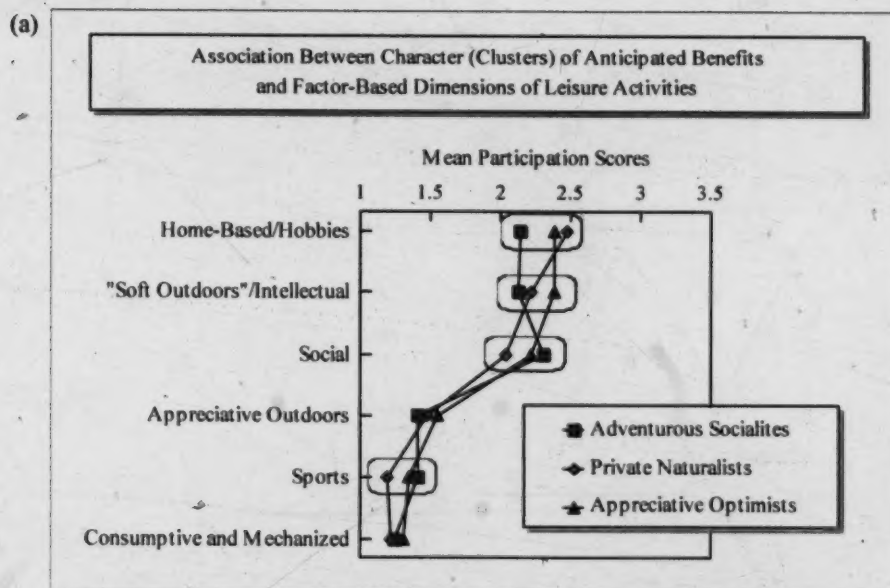
Figure 5.9

Figure 5.10a depicts similar type of relationships at a more general level, based on the factor-derived dimensions of activities. Consistent with the prior discussed relationships, differences were not large. However, they revealed more clearly defined patterns than those resulting from the analyses of individual activity cases (Figure 5.9), suggesting thereby, that more general analyses might be instrumental for better understanding the character of the linkages between leisure benefits and activities (see also Table 5.6). Apart from already emerged or expected tendencies, a somewhat higher participation of *Appreciative Optimists* in "soft outdoors" and intellectual leisure, compared to other clusters of respondents, represents an interesting result, indicating a possible link of intellectual interests to high versatility and optimism in benefit expectations (or ability to accrue a broad spectrum of benefits as a result of leisure). Participation in environmentally appreciative outdoor activities and consumptive and mechanized recreation did not show any connections to the nature of anticipated leisure benefits, suggesting that these types of leisure would most likely satisfy a mixed "recreational crowd," expecting a broad spectrum of beneficial leisure outcomes.

Figure 5.11 presents the benefit-activity relationship from a different perspective, showing the discrimination among distinct groups of activities in terms of their "benefit-generating potential" (clusters of leisure activities being the independent variable in the analyses of variance). Overall, 12 associations proved to be statistically significant, representing a tangible share (31.6%) of the original questionnaire list of 38 benefits.

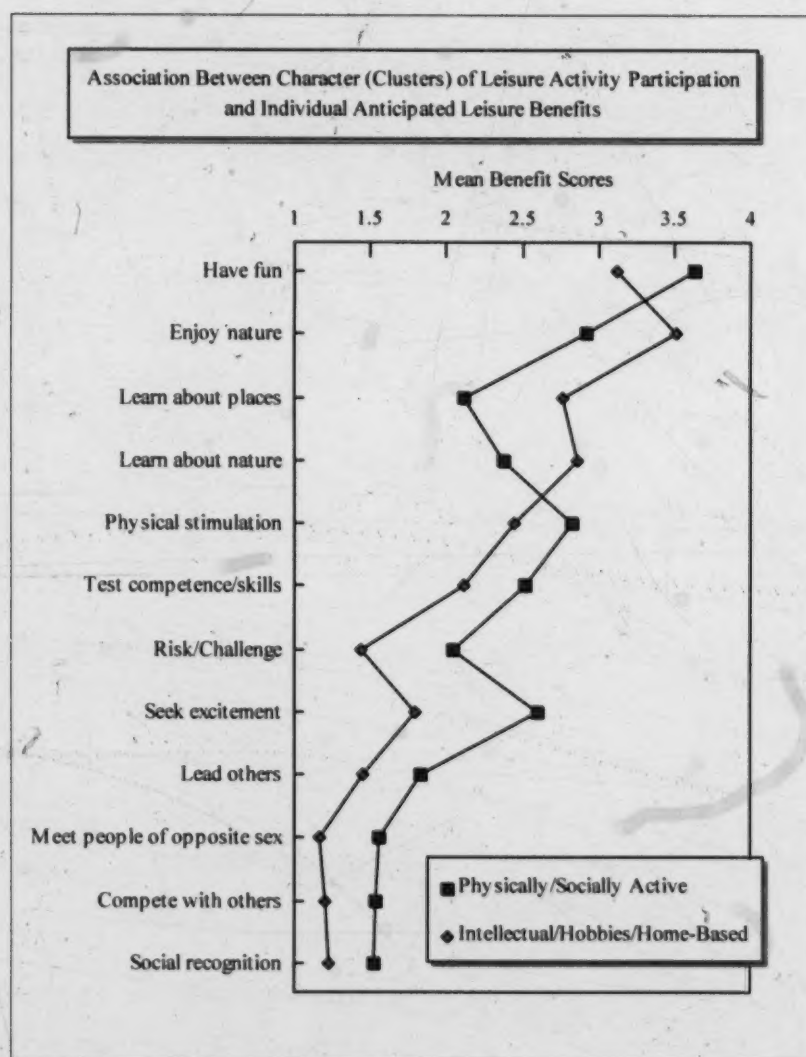
The substantial differences in mean benefit scores suggested that benefits such as seeking excitement and enduring risk and/or challenge were more likely to be expected as the result of physically and socially intense leisure, than from "soft outdoors,"² intellectual, home-based engagements, or hobbies. At the same time, the latter group of activities was best "suited" for attainment of such benefits as enjoying nature and learning (about places and nature). All remaining anticipated benefits, which involved challenge and stimulation ("Have fun," "Physical stimulation," and "Test competence/skills") as well as a variety of benefits ensuing from contacts with other people ("Lead others," "Meet people of opposite sex," "Compete with others," and "Get social recognition") were associated rather with physically and socially active leisure than with intellectual pastime, hobbies, or home-based recreation.

² The *Intellectual/Hobbies/Home-based* cluster of leisure activities also included people pursuing "soft outdoors" (see Chapter 4 on data aggregation).



Circled items indicate statistically significant results

Figure 5.10



All differences are statistically significant.

Figure 5.11

The relationships discussed above were summarized into a more general overview (Figure 5.10b; factor-based dimensions of benefits were used as the dependent variables). The data showed that two benefit dimensions: enjoying nature and taking risk/skill testing varied the most across the type of leisure activity. The first one was potentially "better generated" through "soft outdoors," intellectual leisure, hobbies, or home-based activities, the second one was more related to physically and socially intense leisure. The *Privacy/Escape*, *Family/Friends*, and *Contribution* benefit dimensions showed no mean score variations according to the type of leisure involvement, indicating that a broad variety of leisure activities are equally potent for "inducing" these types of benefits. Indeed, benefits such as being with family or enjoying company of friends can be accrued through participation in practically any kind of leisure.

Comparisons of the results of different studies are usually difficult because of dissimilar measurement techniques, classifications, and statistical procedures. Nevertheless, the inferences about variations among leisure activities in terms of their "benefit-attaining properties" are in line with earlier findings (e.g., Tinsley & Johnson, 1984; Tinsley & Kass, 1978; and Tinsley & Tinsley, 1988) that some types of "needs" can be satisfied (or benefits attained) to a significantly greater degree through participation in particular leisure activities than through other leisure pursuits. At the same time, like the study reported here, they concluded that certain leisure outcomes are attainable to approximately the same degree by participation in many leisure activities.

Discussion and Conclusions

Leisure benefits and motivations: general patterns and socio-demographic variations

The first important inference from the questionnaire data is a high degree of awareness of the beneficial properties of leisure among the respondents. Almost all of them (98.6% of the sample) expected some positive outcomes (anticipated leisure benefits) from their leisure. Also, the vast majority, or 87.7% of the sample, placed a high value on their leisure, indicating that it was either "very important" or "important" for them to have some spare time for leisure and recreation. The "optimists," who generally were enthusiastic about potential leisure benefits, accounted for 79.4% of all respondents, while the "pessimists," who expressed less positive attitude about the advantages of leisure, constituted only 19.3%. At the same time, a relatively modest percentage (55.8%) declared a high degree of success in pursuing their favourite leisure activities, and 42.5% managed to do it only "some of the time" (refer to the chapter on leisure constraints).

Socio-demographic variations in the benefit and motivation-related variables were primarily age-related. Overall, older respondents tended to attach less importance to their leisure, and showed somewhat less positive general disposition toward potential leisure benefits (lower percentage of "optimists" compared to younger individuals). As to the differences in the types of leisure benefits anticipated, younger respondents were more prone to contemplating relaxation, attaining privacy and escaping routines, and risk-taking and/or skill-testing, whereas anticipating enjoyment from nature was higher among their older counterparts.

The few gender-based variations were confined to the types of anticipated benefits. While risk-taking and skill-testing were more intensively anticipated by males, learning was somewhat more important to females.

Income-based variations were mainly limited to the perceived importance of leisure. Individuals from the more affluent households placed higher value on their leisure than the less affluent groups of respondents. Also, people from the wealthier households attached higher importance to getting relaxation as a potential leisure benefit, in comparison to the individuals with lower household incomes.

The emerged pattern of socio-demographic differences may be explained as follows. It can be speculated that predominantly age-based variations in the anticipated benefits and perceived importance of leisure may be attributed to the life-cycle changes (McPherson, 1991; see the next sub-section). At the same time, it is feasible that anticipated leisure benefits, taking into account their extremely versatile and flexible nature, may well "exceed the bounds" of gender or someone's financial situation. For example, while some gender-based differences in anticipated benefits might occur, it is hard to presume gender-based variations in commonly expected beneficial outcomes, such as getting relaxation or a chance to enjoy company of family and friends. Also, the potential suitability of a variety of leisure activities for attaining a particular type of benefit (see the following discussion on the issue of "substitutability") can contribute to the levelling of financial factors as potential deterrents to achieving desirable leisure outcomes and experiences. This explains scarce associations of leisure benefits and motivations with gender or income.

Relationships among the variables

The conclusions reached regarding the associations among anticipated benefits, other variables reflecting leisure motivation, and leisure participation confirmed the propositions postulated in the

objectives section at the outset of this chapter and also provided additional, exploratory insights into the patterns within the data.

1. A consistent positive association between the perceived importance of leisure and intensity of leisure benefit anticipation both at a general and specific level, lent support to the first proposition stating that anticipated leisure benefits are positively linked to other aspects of leisure motivation.

2. The intensity of leisure participation was positively linked to both the overall magnitude of anticipated leisure benefits and perceived importance of leisure, confirming thereby the second proposition. Analyses on various levels of specificity confirmed that the relationship between perceived leisure benefits and leisure participation was a two-way, reciprocal link: stronger overall anticipation of leisure benefits and a higher value placed on leisure were positively connected to the intensity of participation and conversely, the more intense leisure participation was linked to a higher magnitude of anticipated benefits. This finding posits that stronger leisure motivations may "stimulate" activity participation and, in turn, intense leisure participation may prompt further anticipation of beneficial leisure outcomes.

3. The intensity of leisure motivations was also associated with the character of leisure involvement. For example, the data demonstrated that participants in physically and socially intense leisure tended to place a higher value on their leisure compared to people who preferred "soft outdoors," intellectual pastime, hobbies, or home-based recreation (the *Intellectual/Hobbies/Home-Based* cluster).

4. At the same time, the intensity of leisure motivation showed no significant links with the ability to get involved in wanted leisure, except for some tentative evidence indicating that the perceived importance of leisure tended to have a positive link with the ability to pursue the desired leisure (Table 5.4).

5. At a general level and at least on some individual occasions there were significant interrelationships between the types of leisure activity involvement and the character of anticipated leisure benefits (Table 5.6; Figures 5.9 through 5.11). It has been demonstrated that anticipation of particular groups of leisure benefits was associated with higher participation levels in specific leisure activities or their types, suggesting "higher relevance" of some leisure engagements to certain benefits. Also, groups of activities differentiated in terms of their "best suitability" for achieving certain types of benefits. For example, expectation of excitement and enjoying risk and/or challenge was substantially higher among people involved in physically and socially active

leisure, whereas "soft outdoors," intellectual, home-based pursuits, and hobbies revealed a better "benefit-generating potential" for enjoying nature and learning (about nature and places). These data substantiate the third proposition stated in the beginning of the chapter that leisure activities may differ in their beneficial outcomes.

Existence of significant linkages between some leisure activities and benefits does not mean, however, that activities are "mutually exclusive" in terms of potential benefits: although some type of activity can be more "pertinent" for attaining certain benefits than other pursuits, the same benefit can also be associated with many leisure ventures. Conversely, a variety of benefits can result from a single leisure involvement. For instance, although having fun was more associated with physically and socially intense leisure (Figure 5.11), people pursuing intellectual leisure, hobbies, or home-based recreation also scored high on this benefit item. Data in Figure 5.9 indicate that while participation in gardening was slightly higher for private naturalists, members of two other clusters of anticipated benefits also enjoyed high participation in gardening, suggesting that this is a generally popular activity, characterized by a high degree of "universality" in terms of potential leisure benefits.

The concept of "life-cycle" is worth mentioning in this connection as one of the possible explanations of the extremely dynamic and flexible construct of leisure benefits. According to McPherson (1991), "the meaning and purpose of involvement may change with age, or the activity may provide a number of meanings at the same time. To illustrate, hiking in the mountains may be pursued as a physical fitness activity in early adulthood ..., as a way to escape job and urban stress in middle adulthood, and as a setting to pursue a hobby (photography or bird watching) in later adulthood. Thus the preferred type of leisure activity may not change, but the meaning or purpose of the activity may change across the life cycle" (p. 427).

The following additional inferences can be derived from the findings reported in this chapter. First, the benefit-activity relationships display more clear patterns and are more "predictable" on a general scale (Table 5.6, Figure 5.10a,b) than at the individual activity or benefit level. Second, the observation that many leisure activities might possess similar "benefit-generating potential" brings forward the issue of "substitutability" of one leisure activity for another in order to generate similar beneficial outcomes. The issue of substitutability was addressed by Iso-Ahola (1986), who theorized that individuals seek similar psychological qualities from the activities when they are constrained (i.e., "the originally intended activity is no longer possible" [pp. 367, 369]). Tinsley and Kass (1978) also came to an empirically based conclusion that there is a possibility that leisure

activities may be somewhat "interchangeable" in terms of their "need-satisfier dimensions." It could be therefore hypothesized that if constraints arise that interfere with participation in a certain activity, the latter might be substituted (negotiated) for another one, which still could result in the aspired leisure experiences and positive effects (see Chapters 7 and 8 on leisure constraints and their negotiation).

CHAPTER 6

ENVIRONMENTAL ATTITUDES, LEISURE PARTICIPATION AND MOTIVATIONS

Objectives of the Chapter

Much of leisure research concentrates on the role of perceptions and experiences in shaping leisure behaviour. However, it is reasonable to suggest that understanding leisure choices could be enhanced if more fundamental and stable factors than volatile perceptions, namely, values were also taken into account (Kuhn, 1988; Jackson, 1989). As outlined in Chapter 2, values are universal, the total value system is relatively stable over time, yet unstable enough to permit rearrangements of value priorities as a result of changes in culture, society, and personal experience. Values play a key role in guiding action, resolving conflicts, giving direction and coherence to life. Their consequences are manifested in virtually all phenomena of social life and therefore, are worth investigating and understanding (Rokeach, 1973). As to leisure research specifically, Burton (1981), for instance, argued that individual and societal values, and changes in these should be directly employed as an alternative way of examining recreation participation instead of the conventionally used socio-economic model, as the traditional relationships within the latter started to break down with social change and increased complexity of society. Values of people are reflected in their attitudes (Carls, 1980; Rokeach, 1973) toward objects and situations, including the interaction with the natural environment and associated issues. This particular attitude type has been measured and given consideration in the present study with regard to various aspects of leisure.

According to Fishbein & Ajzen (1975), "it has usually been assumed that a person's behavior, with respect to an object is in large part determined by his attitude toward this object" (p. 335). The research that has examined the attitude-behavior relationship, however, has usually provided only modest evidence of associations between the two variables, including links between environmental attitudes and behaviours (Tarrant & Cordell, 1997; Tarrant & Green, 1999). In leisure-related studies specifically, attempts to examine the link between the character of outdoor recreation and environmental attitudes also came up with findings that were either inconsistent, or did not show strong correlations between the variables (Jackson, 1986; Van Liere & Noe, 1981). However, results of this nature do not mean that the link is non-existent, and the researchers who investigated the relationship concluded that future inquiries aimed at better understanding of the environmental attitude-leisure behaviour link should be encouraged.

The present study approaches the relationship between environmental attitudes and leisure behaviour in a way that has not been done in previous research by placing the analysis of attitudes in a broader context than has been done heretofore. To begin with, the range of analyzed leisure activities was extended beyond outdoor recreation, which was the focus of preceding research. More importantly, environmental attitudes were embedded in a larger *conceptual model*, which includes not only observable behaviour, such as reported leisure participation, but other "aspects of leisure." Experience-related components were introduced into the analysis, namely a value that people place on their leisure and the different ways they interpret their past and future leisure experiences in terms of anticipated benefits. Associations among the variables were tested using an alternative classification method based on cluster analysis. Singling out groups or clusters of people, demarcated by distinctive environmental attitudes and participation styles, avoids the double-counting problem (Jackson, 1986), and bases the analyses rather on the number of respondents than on the number of responses.

Based on previous reports that general attitudinal measures are better predictors of general behaviours than of specific actions (Tarrant & Cordell, 1997), measures were taken to attain a "better balance" or conformity between the levels of generalization of participating variables. Unlike some earlier studies, which tried to link global attitudes with very specific behaviours (specific leisure activities), the current study involves assessing the relationships between general "attitudinal profiles" and generalized leisure patterns or styles resulting from factor and cluster classifications.

The following hypotheses were examined in this chapter:

1. There is a positive association between holding pro-environmental attitudes and predilection for (any type of) outdoor recreation.
2. There is a positive relationship between pro-environmental attitudes and participation in "environmentally friendly" outdoor leisure. Appreciative recreationists should exhibit stronger environmental concern than participants in consumptive and mechanized leisure.
3. Lastly, the following proposition has been put forward in an attempt to further explore and explain the relationship between environmental attitudes and leisure behaviour: The link between environmental attitudes and leisure participation may be affected by the "external agents," including *leisure experiences*, such as anticipated leisure benefits.

Also, a number of specific questions were targeted in connection with these postulates: (1) Is there any association between environmental attitudes and pursuing other, not necessarily outdoor,

leisure activities? (2) Are environmental attitudes linked to leisure motivations, such as the perceived importance of and optimistic disposition toward leisure, and if they are, what are the particulars of the relationship? (3) What are socio-demographic variations in the respondents' environmental attitudes and are they congruent with already existing empirical evidence? Altogether the analyses intended to contribute to answering the central question posed in the chapter: *Why* the relationship between environmental attitudes and leisure participation is usually not strong and what additional, "external" factors might affect this link?

General Patterns Within the Data

Environmental attitude items

Environmental attitudes were measured using a scale containing 24 statements about the natural environment and associated issues (Table 6.1). The response categories were: 1 = "strongly disagree," 2 = "disagree," 3 = "neutral," 4 = "agree," and 5 = "strongly agree." At the analysis stage raw scores for "pro-environmental" statements (# 2, 4, 6, 7, 9, 12 through 17, 19, 22, 23, and 24) were reversed, so that low scores uniformly represented the pro-environmental position. The resulting mean scores and percentage frequency of responses for the 24 environment attitude statements in the questionnaire are shown in Table 6.1. To ease the descriptions of general trends in the data, the responses were labelled "ecocentric," "moderate ecocentric," "neutral," "moderate technocentric," and "technocentric." This preliminary, 5-attribute, categorization was used only in the current sub-section to describe frequencies of environmental attitudes (Table 6.1) and was not utilized in subsequent statistical procedures. (The latter employ 3 groups of respondents, "ecocentric," "neutral/moderately pro-environmental," and "technocentric," identified by means of cluster analysis; see Chapter 4). The data are arranged in descending order of mean score for each statement, so that those statements reflecting technocentric responses are listed first (higher scores), and those conveying ecocentric orientation are listed last (lower scores).

Several surveys of environmental attitudes of a similar nature have been administered in Alberta throughout the 1980s and 1990s (Coburn, 1994; Jackson, 1986; Kuhn & Jackson, 1989). Coburn's (1994) masters thesis contains a detailed table of mean scores and frequencies that allows comparison with the results of the present study. Despite the differences in data collection, including the fact that a portion of Coburn's respondents lived outside Edmonton in rural and semi-rural areas, the two data sets showed remarkable consistency. Similarly to Coburn's (1994)

Table 6.1
Mean Scores and Frequencies of Ecocentric, Moderate Ecocentric, Neutral, Moderate Technocentric and Technocentric Responses on Environmental Attitude Statements

Environmental Attitude Statements	Mean Score	Ecocentric (%)*	Moderate Ecocentric (%)*	Neutral (%)*	Moderate Technocentric (%)*	Technocentric (%)*
17. In general, the Canadian people would be better off if the nation's economy stopped growing	3.77	0.7	5.4	25.3	51.4*	15.9
5. We can continue to raise our standard of living through the application of science and technology	3.52	3.0	16.6	15.5	53.7	10.1
8. Economic growth improves the quality of life for all Canadians	3.38	3.7	24.0	16.6	41.2	13.9
1. In the long run, there are no limits to extent to which we can raise our standard of living	2.96	10.5	33.1	12.8	33.1	8.4
15. More emphasis should be placed on teaching children about nature than on teaching them about science and technology	2.91	8.4	24.0	37.8	24.7	3.7
21. Most problems can be solved by applying more and better technology	2.67	9.5	40.2	23.0	22.0	2.7
19. To maintain a healthy economy, we will have to develop a "steady-state" economy...	2.66	7.1	39.5	33.1	14.9	3.0
4. There are limits to growth beyond which our industrialized society cannot expand	2.53	16.2	40.2	19.6	17.9	4.4

Table 6.1 (Continued)

Environmental Attitude Statements	Mean Score	Ecocentric (%)*	Moderate Ecocentric (%)*	Neutral (%)*	Moderate Technocentric (%)*	Technocentric (%)*
13. Science and technology often do as much harm as good	2.51	15.2	39.9	24.7	16.9	2.4
16. We cannot keep counting on science and technology to solve mankind's problems	2.49	13.5	46.6	18.2	17.6	3.0
22. We are approaching the limit to the number of people the earth can support	2.46	17.6	39.9	23.0	13.9	4.1
12. Canadians...have to drastically reduce their consumption of material goods and resources...	2.43	16.6	44.3	20.9	15.5	2.4
24. Rapid economic growth often creates more problems than benefits	2.37	12.2	51.0	23.6	9.5	2.0
2. The earth is like a spaceship with only limited room and resources	2.32	26.4	39.5	14.2	12.5	6.4
11. Humans have the right to modify the environment to suit their needs	2.24	25.3	40.2	19.9	11.8	2.0
6. We attach too much importance to economic measures ... of well-being in our society	2.23	18.9	52.4	16.2	9.1	2.4
14. When humans interfere with nature it often produces disastrous consequences	2.22	18.6	52.7	14.9	11.8	0.7

Table 6.1 (Continued)

Environmental Attitude Statements	Mean Score	Ecocentric (%)*	Moderate Ecocentric (%)*	Neutral (%)*	Moderate Technocentric (%)*	Technocentric (%)*
18. Mankind was created to rule over the rest of nature	2.22	28.4	39.9	16.2	9.1	5.1
10. The positive benefits of economic growth far outweigh any consequences	2.19	25.3	44.3	16.6	11.5	1.7
3. Plants and animals exist primarily to be used by humans	2.18	31.1	38.5	15.2	11.1	3.7
20. Humans need not adapt to the environment because they can remake it to suit their needs	2.00	26.6	53.4	13.2	4.1	1.7
23. Mankind is severely abusing the environment	1.94	32.1	48.3	11.8	5.1	1.4
9. The balance of nature is very delicate and easily upset	1.89	36.5	44.3	12.2	5.4	1.0
7. Humans must live in harmony with nature in order to survive	1.60	47.6	46.3	4.1	1.7	0.0

* Percentage of the sample as a whole.

and Jackson's (1986) results, the data used in the present study indicate a predominantly ecocentric to moderate disposition of the respondents towards the environment. Mean scores reflecting average responses to the scale statements did not reach the mark of 4.00 (which would indicate a moderate technocentric stance), and the majority of them fell in the below average range of less than 3.00.

The basic patterns in the data revealed a somewhat "dual" character of attitudes held by the respondents towards the environment and related issues. On the one hand, they expressed propensity for the general NEP (New Environmental Paradigm; Dunlap & Van Liere, 1978) philosophy by "strongly agreeing" or simply "agreeing" with the statements such as "Humans must live in harmony with nature in order to survive" (47% and 46.3% respectively), "The balance of nature is very delicate and easily upset" (36.5% and 44.3%), and "Mankind is severely abusing the environment" (32.1% and 48.3%). The majority of respondents also strongly disagreed with the "anthropocentric" statements, including "Mankind was created to rule over the nature" (28.4% for "strongly disagree" and 39.9% for "disagree"). On the other hand, while admitting that "Rapid economic growth often creates more problems than benefits" (63.2% for combined "strongly agree" and "agree" responses) and that "We attach too much importance to economic measures ... of well-being in our society" (71.3%), the majority of respondents were not ready to give up the benefits of increased standard of living associated with economic growth. For example, over half of them (51.4%) disagreed and 15.9% strongly disagreed with the statement, "In general, the Canadian people would be better off if the nation's economy stopped growing" and agreed with the statement, "We can continue to raise our standard of living through the application of science and technology" (53.7% and 10.1% respectively).

To sum up, technocentric attitudes were associated mostly with the issues that supported continued growth of the economy and rising standard of living through application of science and technology (items # 5, 8 and 17), whereas ecocentric responses were given most often to the statements that focused on a balanced relationship between man and nature (# 3, 7, 9, 11, 14, 18, 20, 23), and problems associated with economic growth (# 2, 6, 10). Predominantly neutral or "moderate" responses were given to a wide variety of issues including a balanced, steady-state economy (# 19), limits to growth and population (1, 4, 12, 22), and application and effects of science and technology (# 13, 15, 16, 21).

The emerged patterns of responses can be given several alternative interpretations. First, it is plausible that societal values towards the environment are still at a "transient" stage: while there is

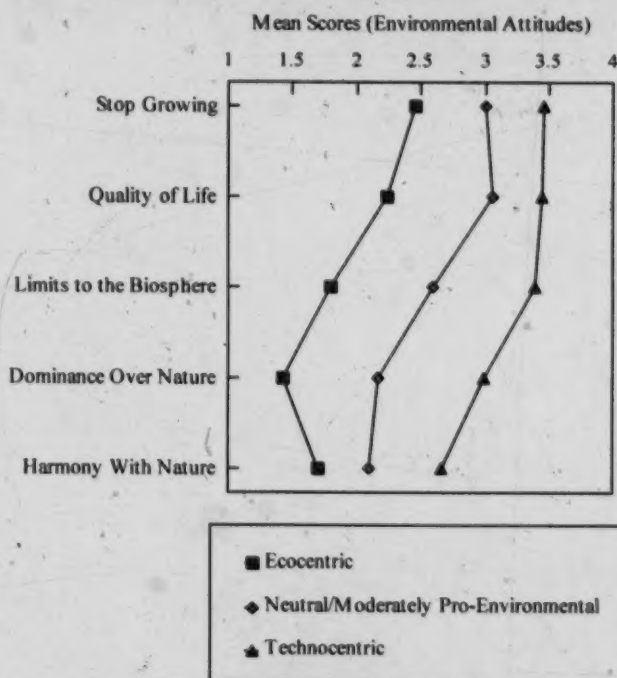
an indication of a remarkable shift towards NEP in terms of support of general pro-environmental concepts, attitudes and interests associated with the Dominant Social Paradigm (DSP) may be deeply rooted in society when it comes to the "practical" issues (willingness to take "a tough stance" and make economic compromises in order to prevent degradation of nature). These results are comparable with other studies of "environmental consciousness." For example, Krause (1993) in a study based on US data, came to the conclusion that, while a high proportion of sample subjects described themselves as environmentalists, "they were willing to make some adjustments in order to safeguard the environment ... as long as these adjustments did not require much in the way of sacrifice" (pp. 140, 141). Second, public support for both environmental protection and economic growth may indicate that "people do not necessarily view these issues as contradictory" (Dunlap & Scarce, 1991; Wall, 1995, p. 299).

Generalized patterns based on the factor-derived dimensions of environmental attitudes

In Figure 6.1 the five factor-based dimensions of environmental attitudes are broken down according to the three clusters of respondents: predominantly "ecocentric," "neutral and/or moderately pro-environmental," and "technocentric." This type of data analysis was performed for the following reasons. First, a generalized arrangement like this complements and clarifies the foregoing detailed description of the data. As previously demonstrated, the graph shows that the prospects of curbing economic growth and lowering standard of living generated a relatively low support (the higher scores indicated a technocentric inclination). At the same time, the dimensions implying more general philosophical issues related to the major "principles" of human-nature interaction (*Dominance Over Nature* and *Harmony With Nature*), scored the lowest, indicating a predominantly ecocentric stance.

Second, the presented analyses provide an additional validation for the cluster classification adopted for the ensuing data examination. The clusters are clearly differentiated; the mean scores vary significantly and in the expected direction: ecocentrics consistently have the lowest mean scores, the neutral cluster scores the second lowest, and technocentrics have the highest mean scores. Also, the neutral cluster scored on each dimension very closely to the corresponding scale mean scores (which were calculated for each of the factor-based dimensions of attitudes).

Relationship Between Factor-Based Dimensions of Environmental Attitudes and Clusters of Ecocentric, Technocentric and Neutral/Moderately Pro-Environmental People



All differences are statistically significant.

Figure 6.1

Socio-Demographic Variations in Environmental Attitudes

Van Liere & Dunlap (1980) found that demographic variables only have a limited use in explaining environmental concern, and that even the most successful predictors -- age, education, political ideology, and residence -- explained only modest levels of variance in environmental attitudes. Jones and Dunlap (1992) concluded that the social bases of environmental concern have remained remarkably stable through 1970s and 1980s despite fluctuating economic, political, and environmental conditions. However, the later studies showed declined importance of age as a

determinant of environmental attitudes (e.g., an American study by Howell & Laska, 1992 and a Canadian study by Wall, 1995). Thereby, the "broadening base hypothesis," predicting diffusion of environmental concern throughout the populace and a broader base of support for environmental protection as a result, has found empirical confirmation.

As expected, the data provided a limited number of significant links (Table 6.2), and generally corroborated earlier reported findings. Because education reportedly remains a significant and stable predictor of environmental concern, examination of variations in environmental attitudes according to this variable was added to socio-demographic analyses presented in this chapter.

Age-based variations

In accordance with the evidence of the declining effect of age as a predictor of environmental attitudes, the data provided only limited evidence in support of the Age Hypothesis, which maintains that age is negatively correlated with environmental concern (Van Liere & Dunlap, 1980). Age was only significantly related to the radically anti-environmental dimension *Dominance Over Nature*, which contained statements, "Plants and animals exist primarily to be used by humans" and "Mankind was created to rule over the rest of the nature." Therefore, the data tends to support the "broadening base hypothesis."

Gender-based variations

Although it has been demonstrated that in some instances gender can be "a useful determinant" in explaining environmental concern (US studies by Milbrath, 1984 and Steger & Witt, 1989, and German study by Schahn & Holzer, 1990), the conflicting results indicate that gender is "not a consistent correlate of ...general measures of environmental concern" (Stern, 1992, p. 281; quoted in Gooch, 1995, p. 533). The present study generated modest support (both significant and tentative evidence) for the hypothesis that women are more environmentally concerned than men (McStay & Dunlap, 1983; Van Liere & Dunlap, 1980). Higher mean scores, indicating technocentric disposition, were typical for men in almost all of the attitudinal dimensions, with one association being statistically significant (*Harmony With Nature*).

Income-based variations

Income and education-related differences constitute a part of the Social Class Hypothesis, implying a positive association of environmental concern with social class. "This hypothesis rests on Maslow's (1970) hierarchy of needs theory, and assumes that concern for environmental quality is something of a luxury which can be indulged only after more basic material needs (adequate food, shelter, and economic security) are met" (Van Liere & Dunlap, 1980, p. 183).

Evidence generated in the current study supports Van Liere & Dunlap's (1980) inference that the correlations between income and environmental concern are "quite ambiguous" and fail to consistently support the hypothesized positive association. While more income-related links turned out to be statistically significant in this study in comparison to other variables, their direction was inconsistent among the attitudinal dimensions. The first group of results showed a *negative* association between income and environmental attitudes. Mean scores on the dimensions implying curbing economic growth (*Stop Growing*) and harmony with nature were significantly higher for the richest group of respondents compared to other income-groups. These results can be interpreted in the following ways. First, although people from the upper classes are more likely to have experienced pleasant residential, work, and recreational environments and, hence, theoretically should be more concerned about deterioration of physical environment compared to less advantaged individuals (the concept of relative deprivation; Morrison et al., 1972; quoted in Van Liere & Dunlap, 1980, p. 184), in reality many of them might have a direct interest in economic growth. This could be especially true in Alberta, whose income largely comes from energy and mineral resource development and also from agriculture and associated processing industries. Second, some authors (e.g., Buttel & Flinn, 1978) argued that poorer people, who might work and live in relatively inferior conditions and have access to poor recreational facilities, should be as much or more concerned about environmental problems than the middle and upper classes.

In contrast to the first set of associations, the idea of mankind's rule over nature found more support among the people with lower household incomes than among higher income-groups. The explanation may lie in the character of the dimension under question (*Dominance Over Nature*). It is plausible that educated individuals would reject a simplified, "archaic" concept that humans have the right to dominate other life forms. The data confirmed a positive link of education with income in the sample. This can explain why in this case higher-income (and likely more educated) respondents took a relatively pro-environmental stance.

Education-based variations

Overall, the data did not lend statistically valid support to the widely backed hypothesis (Howell & Laska, 1992; Jones & Dunlap, 1992; Van Liere & Dunlap, 1981, 1992; Wall, 1995) that education is a significant predictor of environmental concern (Table 6.3). The majority of mean score distributions, within the attitudinal dimensions, as well as the patterns of frequencies related to the generalized ecocentric, neutral, and technocentric groups (clusters) of respondents, revealed a trend consistent with this hypothesis. However, only one relationship was statistically validated (*Quality of Life* dimension).

Also, statistical significant results lacked consistency. Mean scores on the *Quality of Life* dimension indicated that the more educated people were more likely to disapprove the idea of positive effects of economic growth and ability of technology to solve resulting problems. At the same time, the less educated respondents were more supportive of the concept implying curbing economic growth (*Stop Growing*) than the more educated individuals.

Lack of support of the "education hypothesis" in this study can be attributed to certain limitations of the data sample. Although it embraced people in diverse income and education brackets, the survey targeted middle-class neighborhoods. Therefore, the poorest populace of the city was excluded from the comparisons. In addition, in spite of consistent support of this hypothesis in environmental sociology literature, some studies also reported only negligible associations or no relationship (Van Liere & Dunlap, 1980).

Summary of socio-demographic variations in environmental attitudes

To conclude, the results supported earlier observations that demographic variables and social class have limited utility in explaining variations in environmental attitudes (Gooch, 1995; Morrison, 1986; Scott & Willits, 1994; Van Liere & Dunlap, 1980). This can be attributed to gradual "washing away" of social demarcations, as well as to the fact that "awareness of environmental issues is dispersed throughout the population by way of media exposure" (Wall, 1995, p. 307). Therefore, the results imply that a more important and fruitful area of research may lie in examining how environmental attitudes translate into actual behaviour (Dunlap, 1991; Wall, 1995). The subsequent sections of the chapter concentrate on the relationship of environmental attitudes to leisure-related behaviour.

Table 6.3
Variations in Environmental Attitudes According to Education

	Predominantly Senior High	Technical Program/ College	University
<i>Dimensions of Attitudes</i>			
1. Stop Growing	2.81	2.85	3.07
2. Quality of Life	3.17	2.90	2.90
3. Limits to the Biosphere	2.75	2.47	2.54
4. Dominance Over Nature	2.42	2.16	2.10
5. Harmony With Nature	2.06	2.03	2.20
1. F = 4.52; d.f. = 2; p = 0.012	4. F = 2.37; d.f. = 2; n.s.		
2. F = 3.03; d.f. = 2; p = 0.050	5. F = 2.79; d.f. = 2; n.s.		
3. F = 2.03; d.f. = 2; n.s.			
<i>Clusters of Attitudes</i>	(%)	(%)	(%)
Ecocentric	17.3	28.2	27.8
Neutral/Moderately Pro- Environmental	51.9	54.9	49.3
Technocentric	30.8	16.9	22.9
Totals (n)	(52)	(71)	(144)
Chi-square = 4.65; d.f. = 4; n.s.			

Relationship Between Environmental Attitudes and Leisure Participation

In this section, the relationships between the clusters of people holding distinct environmental attitudes (*Ecocentric*, *Neutral/Moderately Pro-Environmental*, and *Technocentric*) and various aggregations of leisure activities are examined (Table 6.4, Figures 6.2 and 6.3). These analyses were performed to retest on a more general basis previously developed hypotheses, which focused on the links between environmental attitudes and outdoor recreation, and to gain new perspectives into the attitudes-leisure relationship.

The activity cluster grouping used in other chapters of the thesis (*Physically/Socially Active* and *Intellectual/Hobbies/Home-Based*) when crosstabulated with the clusters of environmental attitudes, provided statistically significant results (Table 6.4). However, as discussed in Chapter 4,

Table 6.4
Relationship Between Environmental Attitudes and Leisure Participation

	Environmental Attitudes		
	Ecocentric %	Neutral/Moderately Pro-Environmental %	Technocentric %
<i>Character of Leisure Involvement</i> <i>*(Clusters of Activities)</i>			
Physically/Socially Active	23.1	50.0	31.0
Intellectual/Home-Based/Hobbies	76.9	50.0	69.0
Total (n)	(39)	(66)	(29)

Chi-square = 8.31; d.f. = 2; p = 0.016

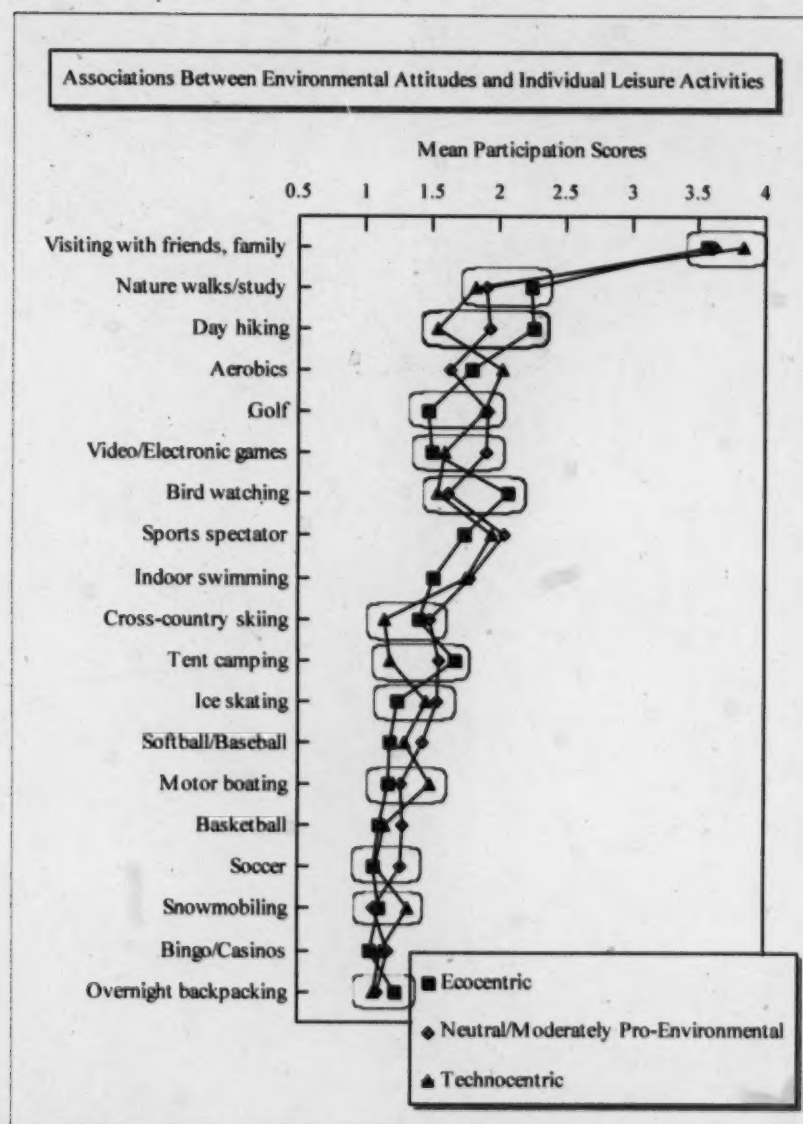
Alternative Sets of Environmental Attitude Clusters (Modified 5 and 7-Cluster Sets)*

<i>1. Character of Leisure Involvement</i> <i>(Based on the 5-Cluster Set)*</i>			
Varied Outdoors	27.3	25.4	26.9
Sports/Social Recreation	3.0	30.5	19.2
"Soft Outdoors"/Intellectual	69.7	44.1	53.8
Total (n)	(33)	(59)	(26)
<i>2. Character of Leisure Involvement</i> <i>(Based on the 7-Cluster Set)*</i>			
Sports/Social Recreation	1.9	18.2	5.0
Appreciative and "Soft" Outdoors/ Intellectual/Home-Based/Hobbies	28.8	13.6	12.5
Home-Based/Hobbies	46.2	34.1	42.5
Consumptive and Mechanized	7.7	11.4	20.0
Social Recreation	15.4	22.7	20.0
Total (n)	(52)	(88)	(40)

1. Chi-square = 10.51; d.f. = 4; p = 0.033

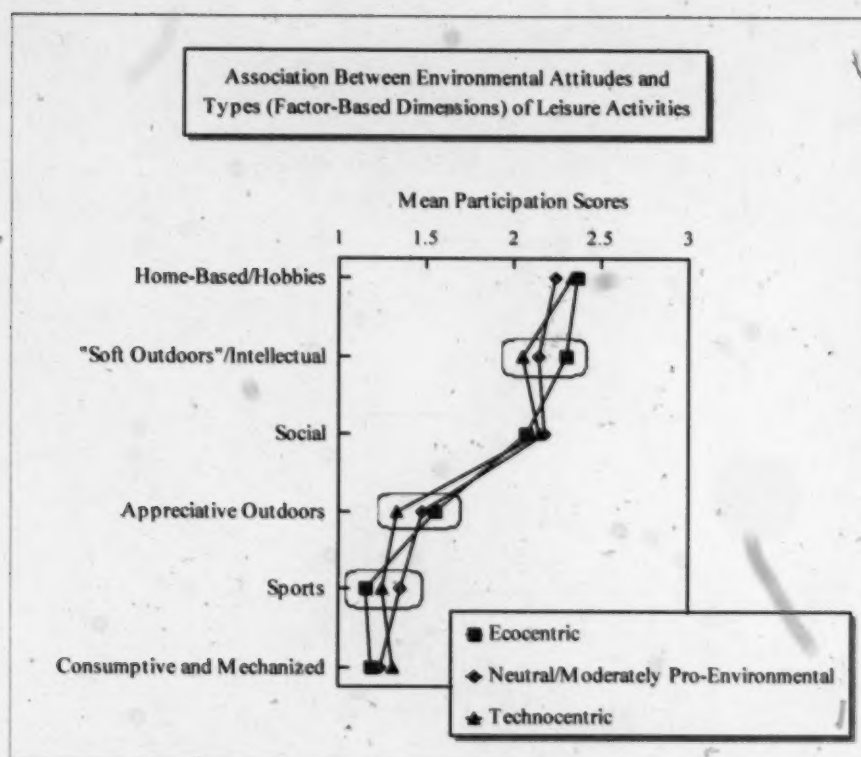
2. Chi-square = 19.86; d.f. = 8; p = 0.011

* Both 5 and 7-cluster sets included two predominantly "inactive" clusters each, which were omitted from the analyses presented in Table 6.3.



Circled items indicate statistically significant differences

Figure 6.2



Circled items indicate statistically significant differences.

Figure 6.3

this classification of leisure participation is too generalized for the analyses of associations with environmental attitudes. For example, the cluster amalgamating people involved in physically and socially active leisure encompasses a very broad spectrum of activities, including appreciative (relatively "environmentally friendly") and consumptive and mechanized (not "pro-environmental") outdoor recreation and also various sport engagements. As a result, the emerged associations tell us little about the links between environmental attitudes and specific patterns of leisure behaviour.

In order to make the results comparable to preceding studies, it is necessary to use more detailed activity cluster aggregations that would first, single out participants in outdoor leisure in general, and second, differentiate between engagement in "environmentally friendly" and "unfriendly" outdoor pursuits. Therefore, alternative, truncated sets of clusters (based on the 5- and

7-cluster solutions) were used exclusively for the analysis of the links with environmental attitudes (see Chapter 4 for the details regarding cluster classifications).¹

The analyses based on the truncated 5-cluster combination (Table 6.4) revealed no links between environmental attitudes and involvement in outdoor leisure. Equal proportions (slightly above one-quarter) of the respondents who expressed ecocentric, neutral, or technocentric orientation were engaged in outdoor recreation. Thus "reversed" version of Dunlap and Heffernan's (1975) hypothesis holding that there is a positive link between environmental concern and involvement in outdoor recreation was not confirmed by the data.

However, including a broader spectrum of leisure activities in the analysis than has been done before resulted in uncovering other, formerly undetected links, pointing at different patterns of association between environmental attitudes and participation styles. The findings suggested that the holders of "moderate" or technocentric views tended to engage in leisure pursuits that usually do not involve concentration on (or close involvement with) the natural environment, such as predominantly team sport activities and social recreation. The data demonstrated that higher percentages of the technocentrics (19.2%) and especially "neutrals" (30.5%) engaged in sport activities and/or social recreation, compared to a very small percentage (3.0%) of ecocentrics. At the same time, the cluster of people pursuing appreciative, "soft outdoor" activities (not necessarily physically intense and likely urban pursuits, such as nature walks, walking for pleasure, and day hiking) and intellectual leisure showed a positive association with environmental concern. More than two-thirds (69.7%) of the ecocentric individuals reported pursuing this type of recreation, compared to 44.1% of the people holding a neutral disposition and 53.8% of the technocentrics. An important suggestion following from this finding is that not only appreciative recreation, but also its combination with intellectual leisure, which presumes higher levels of knowledge and education, may be positively linked with ecocentric attitudes.

All these patterns may be additionally interpreted by looking at the connections of the same activity groupings with the clusters of anticipated benefits (Table 6.5).² Congruent with the patterns emerged in Table 6.4, the adherents of "soft outdoors" and intellectual leisure, who were

¹ Both 5 and 7-cluster sets of leisure participants had two "inactive" clusters each, which were excluded from the analyses presented in Table 6.4.

² The data presented in Table 6.5 forestall a detailed examination of the relationship between anticipated benefits and environmental attitudes outlined in the following section of the chapter.

Table 6.5
Relationship Between Nature of Anticipated Leisure Benefits and Participation Styles

	Nature of Anticipated Leisure Benefits (Clusters of Benefits)		
	Adventurous Socialites %	Private Naturalists %	Appreciative Optimists %
<i>Character of Leisure Involvement</i>			
Varied Outdoors	20.6	25.7	34.8
Sports/Social Recreation	38.2	8.6	15.2
"Soft Outdoors"/Intellectual	41.2	65.7	50.0
Totals (n)	(34)	(35)	(46)
Chi-square		12.02	
d.f.		4	
p		0.017	

also in the majority within the ecocentric group, accounted for the highest proportion of the "private naturalists," who expected nature-related leisure benefits. A low proportion of the pursuers of sports and/or social activities among the ecocentrics (Table 6.4) was also consistent with the finding that this group of leisure participants accounted for a very low percentage of the "private naturalists" (Table 6.5). At the same time, they were relatively well represented among the "adventurous socialites," who anticipated benefits such as risk, challenge and socializing. Lastly, those who pursued various outdoor activities showed no differentiation both across environmental attitudes and anticipated leisure benefits, indicating that this type of activity probably attracts very mixed public, distinguished by a broad variety of attributes, including environmental orientations and anticipated leisure benefits.

Another activity cluster solution (based on the truncated 7-cluster set; Table 6.4) resulted in further breaking respondents into distinctive participation styles. Singling out those who preferred appreciative outdoor activities, which normally do not negatively interfere with the natural environment, and those who pursued less environmentally friendly consumptive and mechanized recreation, allowed to test the results against a restated version of Dunlap and Heffernan's (1975) hypothesis, postulating that engagement in appreciative activities is linked to stronger pro-

environmental attitudes than involvement in intrusive outdoor recreation. The data provided moderate, albeit statistically significant, substantiation of the hypothesis. Smaller proportions of the technocentric respondents and those distinguished by a neutral or only moderately ecocentric stance (12.5% and 13.6% respectively) participated in the activity combination embodying appreciative outdoor pursuits, intellectual leisure, and hobbies³, compared to the consistent ecocentrics (28.8%). In turn, only 7.7% of the latter were involved in consumptive and mechanized activities, while 20% of the technocentrically orientated individuals pursued this type of recreation.

The data displayed in Figures 6.2 and 6.3 make it possible to look at the relationships from the perspective of specific leisure activities and their factor-based dimensions. The data confirmed the presence of a modest but consistent link between ecocentric orientation and appreciative outdoor leisure. Participation in "non-intrusive" activities such as nature walks and study, day hiking, bird watching, cross-country skiing, tent camping, and overnight backpacking was higher among the ecocentric individuals (Figure 6.2). Interestingly and contrary to expectations, the majority of statistically significant results involved not necessarily "wilderness" pursuits (such as overnight backpacking and tent camping), which presume especially close contacts with nature, but rather activities that can be also characteristic of urban environment. In addition, as detected earlier in generalized tests (Table 6.4), a combination of such "soft outdoors" and intellectual leisure was also somewhat positively associated with environmental concern (Figure 6.3).

As to another traditionally examined "component" of the environmental attitudes-leisure participation relationship, namely, connections to consumptive and mechanized recreation, the specific data generally failed to detect attitude-related variations in this area. The corresponding dimension as well as the majority of individual consumptive and mechanized outdoor pursuits listed in the questionnaire (e.g., fishing, hunting, and trailer camping) did not show significant variations with attitudes, except for motor boating and snowmobiling, which were slightly more characteristic of the technocentrics. At the same time, as mentioned earlier, other types of activities, which involved sport engagements, as well as select indoor and social pursuits showed

³ Although the *Appreciative and "Soft" Outdoors/Intellectual/Home-Based/Hobbies* cluster (Table 6.4) included participants in intellectual, home-based recreation, and hobbies, it was dominated by participation in appreciative outdoor recreation (appreciative and "soft" outdoors) (see Chapter 4, classification of environmental attitudes). Therefore, it was suitable for comparison with the cluster amalgamating participants in consumptive and mechanized recreation. Moreover, emerged combination of leisure pursuits might be an indication that in reality people are not always engaged in a single type of leisure, and participants in appreciative outdoor recreation were also inclined to some other forms of leisure.

some association with either the neutral or technocentric disposition toward the environment (Figures 6.2 and 6.3).

In summary, the data revealed that *general aggregations* of both environmental attitudes and types of leisure are more instrumental in revealing associations between the variables (Table 6.4) than the attempts to explain specific activities based on a general environmental orientation.

Overall, participation in outdoor recreation did not show connection with ecocentric views. This lack of association can be explained by the lack of differences in anticipated leisure benefits, presuming that this type of leisure can satisfy a very mixed crowd. However, consistent with previous findings, the data confirmed a moderate, but statistically valid, association between the ecocentric disposition and pro-environmental leisure behaviour.

At the same time, the study demonstrated that focusing on outdoor recreation, characteristic of previous research, is not sufficient for understanding behavioural implications of environmental attitudes. Using a broad, generalized set of leisure activities in the analyses demonstrated that participation in other pursuits (such as combination of sport and social activities) also showed some connection with an environmental orientation.

An important observation resulting from this study is that cluster aggregations of leisure participants can be instrumental in future research of the relationship between environmental (and other) attitudes and leisure behaviour. Indeed, in real life people tend to *combine* different leisure pursuits to form certain "participation styles" (for example, "pro-environmental" recreation may take place in combination with other activities, such as "intellectual" leisure; see Table 6.4). Considering leisure participation as complex aggregates of different activities rather than their "unilateral dimensions," may contribute to better understanding of their relationship with environmental (and other) attitudes and may also uncover stronger links among the variables.

The present and previous findings suggest that the ability to *predict* recreational activity preferences based on environmental attitudes may be quite limited. However, there is another way to look at these results, which is more important considering that the study reported here is concerned with *understanding* leisure behaviour. The apparent low level of direct associations could prove to be important for the *explanation* of leisure choices. Based on the suggestion that "attitudes are likely to affect behavior when other factors do not constrain their expression" (Stern, 1992, p. 279), the next portion of the chapter concentrates on other variables that might affect this relationship.

Relationship Between Environmental Attitudes, Anticipated Leisure Benefits and Other Leisure Motivations

Environmental attitudes and intensity of leisure motivations

The data in Table 6.6 summarize the associations between environmental attitudes and leisure motivations, measured as the perceived importance of having some time allocated to leisure (a value placed on leisure) and as anticipated benefits of leisure (their overall intensity and character).

All presented chi-square tests resulted in significant relationships, and a review of the frequencies exposed interesting patterns. There was consistent evidence in support of a positive link between leisure motivations and pro-environmental disposition of leisure participants. For example, 62.7% of the ecocentric individuals indicated that having some leisure time was very important for them, versus 53.0% of those who maintained a neutral or moderately pro-environmental stance, and only 45.0% of the technocentrics. Just 3.0% of the people classified as ecocentrics, declared leisure to be merely "somewhat" or "not at all important," whereas the proportions of the "neutrals" and especially technocentrics were higher in this motivation category (11.9% and 21.7% respectively).⁴

Regarding the overall intensity of anticipated benefits, the majority of people in all environmental attitude groups were optimists (those who considered pursuing leisure to be advantageous for them in many ways). However, almost all ecocentrics (92.8%) fell in this category, while the corresponding percentages were 79.4% and 72.6% for the neutral and technocentric respondents. In contrast, the percentage of people who did not expect much from their leisure (pessimists) exceeded 20% in the technocentric and neutral clusters, but was only 7.2% among the ecocentrics.

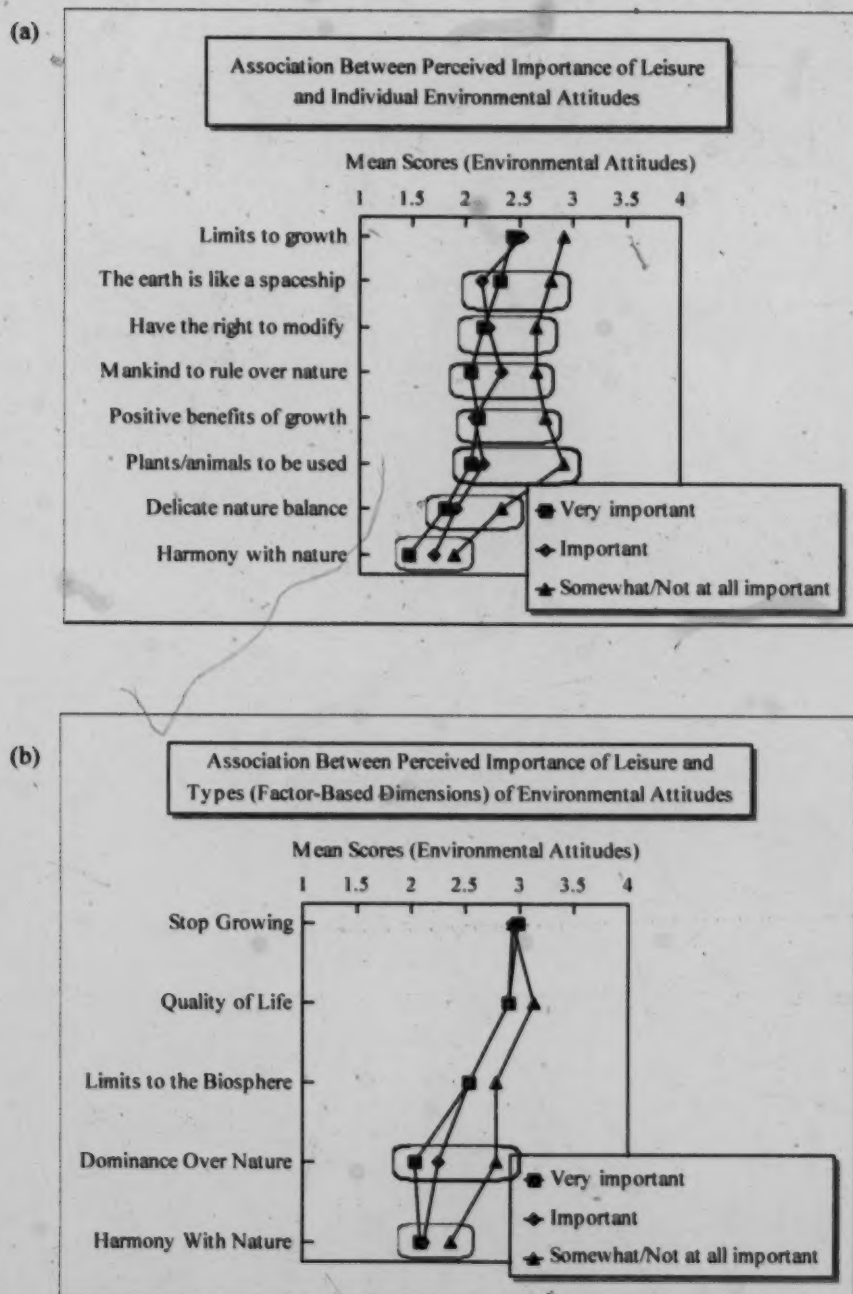
The one-way analyses of variance performed on the less aggregated data revealed the same trend toward a positive connection between pro-environmental attitudes and leisure motivations. Overall, all significant differences indicated a positive link between the perceived importance of leisure (Figure 6.4a) and strength of anticipated benefits (Figure 6.5a) and individual attitude items. There was a remarkable consistency between Figures 6.4a and 6.5a in the make-up of attitude items that had significant links with the two motivation variables. This consistency repeated itself in

⁴ A theoretical explanation of why this finding occurred is provided in the conclusions to this chapter.

Table 6.6
Relationship Between Environmental Attitudes and Leisure Motivations

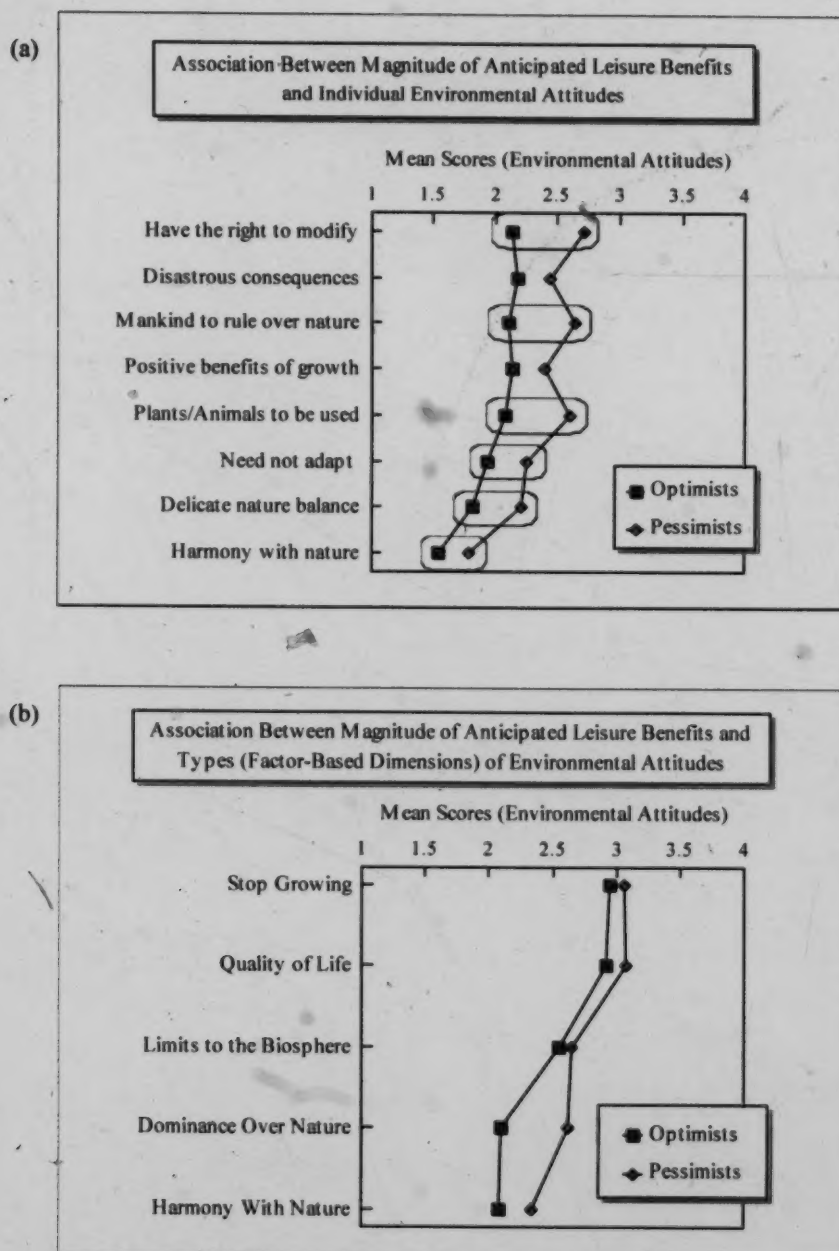
	Environmental Attitudes		
	Ecocentric %	Neutral/Moderately Pro-Environmental %	Technocentric %
<i>1. Importance of Having Leisure Time</i>			
Very Important	62.7	53.0	45.0
Important	34.3	35.1	33.3
Not at all/Somewhat Important	3.0	11.9	21.7
Total (n)	(67)	(134)	(60)
<i>2. Intensity of Anticipated Leisure Benefits</i>			
Optimists	92.8	79.4	72.6
Pessimists	7.2	20.6	27.4
Total (n)	(69)	(136)	(62)
<i>3. Nature of Anticipated Leisure Benefits (Clusters of Benefits)</i>			
Adventurous Socialites	14.1	33.3	51.1
Private Naturalists	54.7	29.6	22.2
Appreciative Optimists	31.3	37.0	26.7
Total (n)	(64)	(108)	(45)
1. Chi-square = 11.21; d.f. = 4; p = 0.024			
2. Chi-square = 9.36; d.f. = 2; p = 0.009			
3. Chi-square = 22.90; d.f. = 4; p = 0.000			

more generalized tests of the same associations involving the dimensions of attitudes (Figures 6.4b and 6.5b). Statistically valid relationships were confined in both cases to the *Dominance Over Nature* and *Harmony With Nature* dimensions. Therefore, the assumption is justified that the emerged associations are not merely "occasional events," but may be indicative of underlying patterns in the data, namely, that the association between the intensity of leisure motivations and environmental attitudes can be dependent on the type of the latter. Or, put differently, the data revealed that the strength of leisure motivations differentiated only along two "attitudinal lines" reflecting general, philosophical views on the humans-nature interaction.



Circled items indicate statistically significant differences.

Figure 6.4



Circled items indicate statistically significant differences.

Figure 6.5

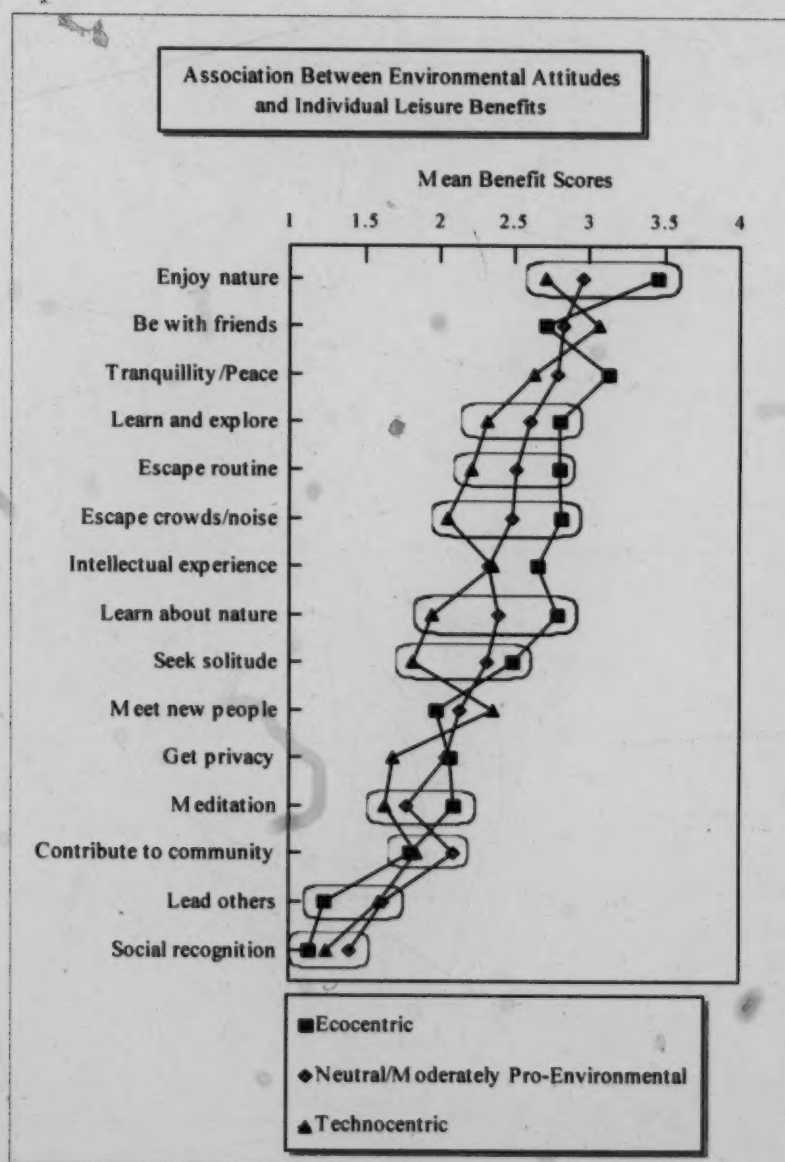
Association between environmental attitudes and character of anticipated benefits

The data revealed that environmental attitudes can be better predictors of *anticipated leisure benefits* than of "actual" leisure participation. The last chi-square test in Table 6.6 shows a strong association between environmental attitudes and types of anticipated benefits. As expected, the frequency of the private naturalists (people who mostly anticipated enjoying nature and getting privacy from their leisure) was significantly higher in the ecocentric group (54.7%) than in the neutral (29.6%) and technocentric (22.2%) clusters. At the same time, half of the technocentrics (51.1%) had an aptitude for risk, skill testing and social gains (*Adventurous Socialites*), but only 33.3% of the people with a neutral environmental stance and merely 14.1% of ecocentrics fell into this category. Variations in the proportions of the most "flexible" appreciative optimists, who expected to enjoy a broad range of benefits from their leisure, rather than expressed specific preferences, were not large among the environmental attitude groups.

Detailed analyses involving specific benefits and their dimensions confirmed the link between the ecocentric stance and anticipated benefits associated with enjoying nature and learning about nature, as well as getting privacy. The *Ecocentric* cluster yielded consistently the highest mean scores on the items such as "Enjoy nature," "Learn about nature," "Learn and explore," "Escape routine," "Escape crowds and noise," "Seek solitude," and "Meditation" (Figure 6.6). In contrast, the *Technocentric* cluster scored the lowest on these items, and the neutral and moderately pro-environmental group of people was somewhere in between. The same was true for the *Enjoying Nature, Learning, and Privacy/Escape* benefit dimensions (Figure 6.7).

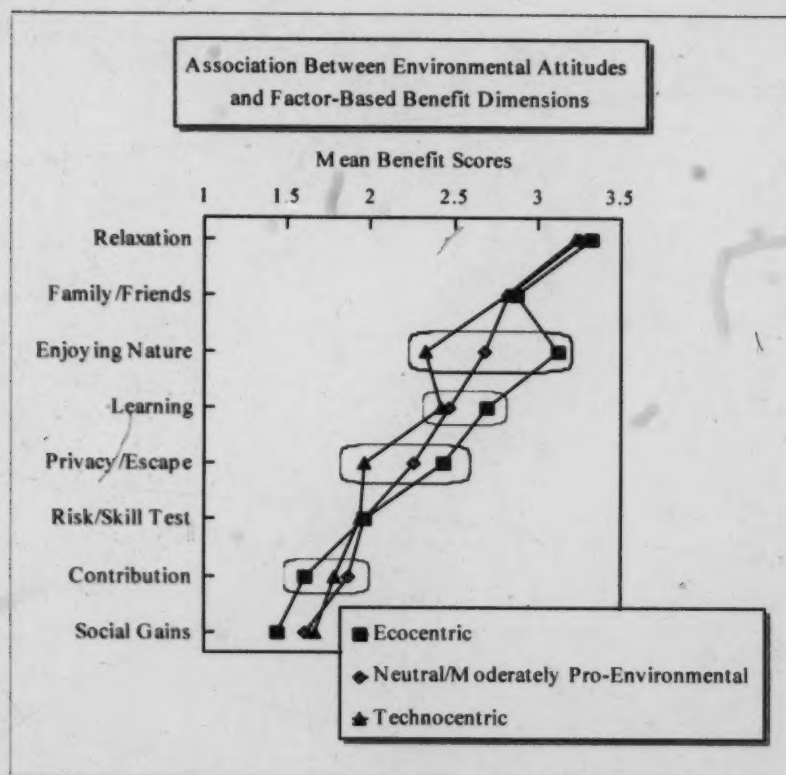
At the same time, there was a trend in the data suggesting that anticipation of social gains was somewhat linked with either the technocentric orientation, or neutral and moderate environmental attitudes (individual items, including "Contribute to community," "Lead others," "Social recognition," and also benefit dimensions, such as *Contribution* and *Social Gains*).

The data assembled in Figure 6.8a,b makes it possible to look at the relationship between the types of environmental attitudes and anticipated leisure benefits from a slightly different angle. First, it renders additional support to the inferences derived from the data displayed in Figures 6.6 and 6.7, namely, that understandably, the ecocentric stance was somewhat more characteristic of those who anticipated privacy and enjoying nature from their leisure (the *Private Naturalists* cluster), and technocentric attitudes were more typical of the people who expected adventures and social benefits (*Adventurous Socialites*). Second, similar to the results presented in Figures 6.4b and 6.5b, the data in Figure 6.8b uncovered the dimensions of environmental attitudes that



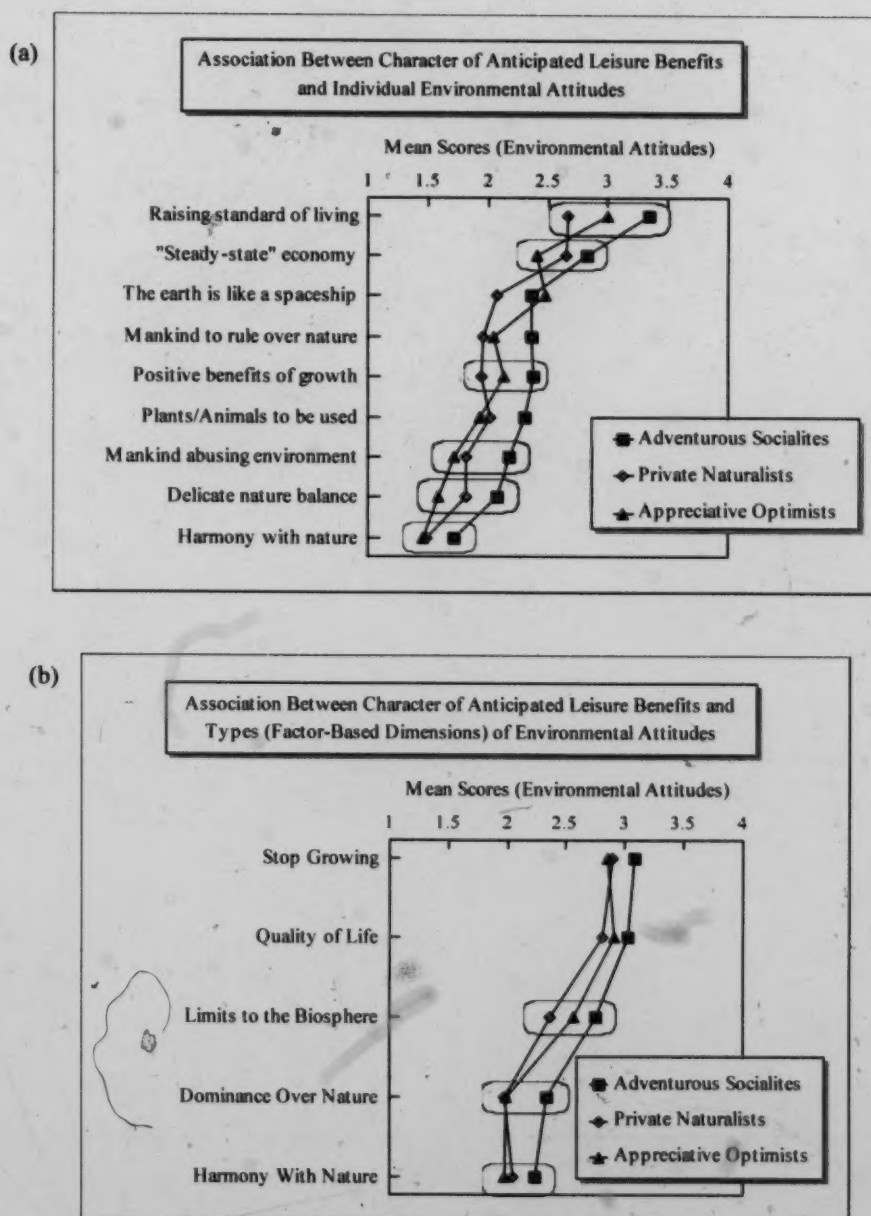
Circled items indicate statistically significant differences.

Figure 6.6



Circled items indicate statistically significant differences.

Figure 6.7



Circled items indicate statistically significant results.

Figure 6.8

differentiated with respect to anticipated benefits. The data confirmed once again that not all attitudinal dimensions were associated with leisure motivations. In fact, the issues evolving around curbing economic growth and stopping counting on science and technology (the *Stop Growing* dimension) and also the issues related to quality of life, showed no relationship with leisure motivations throughout all of the analyses (Figures 6.4b, 6.5b, and 6.8b). The dimension *Limits to the Biosphere* showed a modest variation only once according to the nature of anticipated benefits (Figure 6.8b). In contrast, the dimensions that involved general problems of the mankind-nature interaction (*Dominance Over Nature* and *Harmony with Nature*) showed modest, albeit very consistent variations according to the motivation-related variables (Figures 6.4b, 6.5b and 6.8b).

Discussion and Conclusions

General patterns and socio-demographic variations in the data

This study revealed the following general trends in environmental attitudes. While average responses to the Environmental Attitude Scale skewed toward the ecocentric end, classification by means of cluster analysis revealed that 46.6% of surveyed individuals adhered to either a neutral or only moderately ecocentric position. Much smaller groups were classified as consistent ecocentrics or technocentrics (23.6% and 21.3% respectively). Also a certain "duality" in environmental attitudes was observed. Despite strong support of the issues such as the need to live in harmony with nature and maintain its balance, the majority of respondents disagreed with the "commitment" statements including giving up benefits of economic growth and rising standard of living. The observed "attitudinal split" may be explained in a variety of ways. On the one hand, it fits the theories of rational self-interest, which imply that the realization of the cost of environmental reform may contribute to the decline in ecocentric outlooks. On the other hand, seeming dissent in support of different environmental issues might result from the fact that some people are simply not convinced that environmental reform has to be accompanied by economic trade-offs (Wall, 1995).

As far as the associations with social and demographic variables are concerned, the emerged relationships were generally in line with previous findings that environmental concern is extended across demographic and economic barriers and that "environmental concern is 'trickling down' the class structure and becoming diffused throughout the population" (Morrison, 1986; Wall, 1995, p. 310). These results confirm the validity of the data and also support the conclusions reached in other studies about the preferability of focusing on the behavioural implications of environmental attitudes.

Environmental attitudes and leisure participation

Testing the propositions based on Dunlap and Heffernan's (1975) hypotheses about the relationship between outdoor recreation and environmental concern resulted in a partial success. The first hypothesis postulating that a pro-environmental disposition is positively linked with involvement in outdoor recreation was not supported. The second hypothesis, stating that environmental concern is more strongly associated with engagement in appreciative outdoor activities than in consumptive and other energy consuming and intrusive recreation, found modest, but consistent and statistically significant support. These results are congruent with preceding research, which also showed more consistent and strong support for the second hypothesis (Dunlap & Heffernan, 1975; Van Liere & Noe, 1981).

However, congruent with other findings reported in the leisure literature (Tarrant & Green, 1999), it has been demonstrated that not all types of outdoor recreation showed differences in participation depending on environmental attitudes. In fact, such variations were mainly confined to some appreciative activities and were not typical of consumptive and mechanized pursuits (Figures 6.2 and 6.3). Therefore, focusing on outdoor recreation as has been characteristic of previous research may not be sufficient for understanding the environmental attitudes-leisure behaviour relationship. This idea has been corroborated by uncovering additional links between environmental attitudes and leisure participation as a result of broadening the range of examined activities.

For instance, a positive association occurred between the neutral or technocentric stance and engagement in activities that do not necessarily imply a direct contact with or focusing on the natural environment, such as (predominantly team) sport pursuits and social recreation (Table 6.4; Figure 6.3). This relationship may be (at least partially) accounted for by the connections with anticipated leisure benefits. It has been demonstrated that anticipation of nature-related benefits (being a "private naturalist") is strongly linked to the ecocentric orientation (Table 6.6). At the same time, the adherents of various sport activities and social leisure did not appreciate nature-related benefits, but preferred adventure and social gains instead (see Table 6.5 and also Figure 5.10b). Therefore, it can be speculated, that holding the "neutral" or technocentric views may be associated in some people with indifference toward the natural environment and result in involvement in leisure pursuits that do not require direct contact with nature (e.g., indoor or sports ground activities). The possibility that holding technocentric attitudes is not necessarily associated

with some type of "intrusive" outdoor recreation, but may be distinguished by other leisure styles, supports an argument on behalf of including a broad spectrum of leisure activities in future analyses of behavioural implications of environmental attitudes.

In contrast, holding ecocentric views was found to be associated with pursuing appreciative "soft outdoors" in combination with intellectual leisure. This relationship can also be explained by the pattern of desired benefits (Table 6.5). The adherents of "soft outdoors" and intellectual leisure comprised the majority of the "private naturalists," who anticipated benefits resulting from contacts with nature and also a substantial portion (50%) of the "appreciative optimists," who expected a broad range of beneficial effects, including nature-related benefits. At the same time, lack of affiliation with a particular type of anticipated benefit may account for the absence of the relationship between participation in outdoor recreation in general and any particular environmental orientation (lack of support for the first Dunlap and Heffernan's hypothesis).

In summary, this study indicates that the relationship between environmental attitudes and leisure participation is worth further investigation, but on a broader "leisure activity basis." A "switch" from an activity specific and "unidimensional" approaches to detecting and examining combinations of leisure activities, reflecting complex character of leisure behaviour, may be useful for attaining a better appreciation of the association between environmental attitudes and leisure participation. In fact, not a single activity, or activity type may be associated with a specific environmental orientation, but rather their blend or combination indicative of a distinctive "participation style" (e.g., "Soft Outdoors"/Intellectual cluster).

Examination of the links between environmental attitudes and *leisure experiences*, including anticipated leisure benefits and other motivation-related variables, is a completely new line of research initiated in this study. Therefore, the results described in the previous, analysis, section of the chapter need to be carefully construed and theoretically interpreted. The study produced two major lines of findings. First, environmental attitudes showed a significant association with the "motivational facets" of leisure experience. Second, introducing an experience component into the analysis resulted in creating a broader conceptual context for explaining the attitudes-participation link. The resulting findings provided new theoretical explanations for an apparently weak relationship between environmental attitudes and leisure participation. These two major groups of results are given a detailed consideration in the following sub-sections.

Relationship between environmental attitudes and leisure motivations

Unlike the modest environmental attitudes-leisure participation correspondence, the analyses of attitudinal links with motivation-related variables produced stronger associations (Table 6.6). It has been discovered that pro-environmental attitudes were positively linked with the strength of leisure motivations. Furthermore, types of anticipated leisure benefits varied according to environmental attitudes.

Environmental attitudes and strength of leisure motivations: The data uncovered an interesting relationship indicating a positive link between the general strength of leisure motivations (the overall value placed on leisure and intensity of anticipated benefits) and the ecocentric orientation. Consistency of the emerged associations suggest a good possibility that they are not accidental, and therefore, deserve an explanation. The data do not offer a direct explication of these results, but a proposition can be drawn based on the findings available from this and previous studies that the intensity of leisure participation may play a "mediating role" in the positive association between pro-environmental attitudes and strength of leisure motivations.

To begin with, the present study revealed a strong positive link between the strength of leisure motivation and the overall intensity of leisure participation (Chapter 5). At the same time, Bikales and Manning (1990) observed a positive cumulative effect of (outdoor) recreation participation (i.e., the overall intensity of participation) on environmental concern. The current study also indicated that such relationship may exist.⁵ It can be reasoned based on these findings, that strong leisure motivations are related to intensified leisure participation, which, in turn, may result in intensive exposure of recreationists to different (positive and negative) environmental situations. This exposure, together with presumably more "pro-active" general life disposition, may contribute to their alertness about quality of their leisure and about more general environmental problems. Therefore, it is reasonable to assume that active leisure participants, the majority of whom are proven to place a high value on their leisure and be optimistic about it, are also more concerned about environmental (and probably other) problems than their more passive and indifferent counterparts.

⁵ A number of specific data analyses that are not presented and discussed in the thesis revealed some connection between ecocentric orientation and the overall intensity of leisure participation. Active leisure participants were significantly more pro-environmentally biased in some individual statements related to the mankind-nature relationship and also in the *Dominance Over Nature* dimension.

Attitudinal dimensions and leisure motivations: At the same time, the data suggested that not all environmental attitudes showed connection with leisure motivations. In fact, only two out of five dimensions (*Dominance Over Nature* and *Harmony With Nature*) differentiated consistently and significantly with respect to motivations. These results are important on the following counts. Firstly, they complement Jackson's (1986) finding that the same "basic," philosophical interpretation of the relationship between mankind and nature discriminated better between adherents of appreciative and not appreciative recreation than more specific concerns about the negative consequences of economic growth and technology, or beliefs about the limits to the biosphere. Secondly, they extend previous research (which focused only on connections with leisure participation) to the field of *leisure experience* and allow us to make a more generalized inference that only selected environmental attitudes show connection with different aspects of leisure. This conclusion may be useful for future research, which probably should concentrate on the "most relevant" types of environmental attitudes and their associations with leisure-related variables.

The link between an environmental stance and anticipated leisure benefits; a value connection: A novel finding emerged from the data indicated a strong association between environmental attitudes and the character of anticipated leisure benefits (Table 6.6). Being ecocentric and expecting benefits characteristic of the "private naturalists" is easy to interpret. However, the link between the technocentric orientation and being an "adventurous socialite" is not as straightforward and therefore, requires more theoretical explanation. The theory of values makes it possible to hypothesize that this type of association between environmental attitudes and anticipated leisure benefits can be a reflection of their connection with the third variable, namely, values.

A "conceptual position" of environmental attitudes in relation to more general constructs, values, is discussed in Chapter 2. According to Schwartz (1992), values can be arrayed along two major dimensions of self-enhancement and self-transcendence, reflecting the distinction between values oriented toward the pursuit of self-interest ("egoistic values;" Stern, Dietz, & Guagnano, 1995) and values related to a concern for the welfare of others (including "social-altruistic" and "biospheric" values; Stern et al., 1995). Technocentric environmental attitudes, which assume that nature can be exploited by humans, can be categorized as a reflection of the first ("self-interest") value group. At the same time, "biospheric" or "universalism/biospheric" values of the second group, such as "Unity with nature," "Protecting the environment," "Respecting the Earth," "A world

of beauty" (Karp, 1996; Stern et al., 1995) can be antecedents of "pro-environmental" attitudes.

Values also "have a strong motivational component" (Rokeach, 1973, p. 14), which can underlie any aspect of human behaviour, including anticipated benefits of leisure. Anticipated benefits, such as testing oneself in risky situations, testing or developing skills, competing, and getting excitement (benefits characteristic of the cluster of *Adventurous Socialites*) may be indicative of values which include "An exciting life," "Being daring," "Being capable," and "Enjoying life," which express self-enhancement and self-interest. Therefore, belonging to the same, "self-enhancing" major value group (or having a similar value foundation) may account for the relationship between holding technocentric attitudes and expecting leisure benefits typical for the "adventurous socialites."

Further connections: environmental attitudes, anticipated benefits, and leisure participation

Detecting associations between environmental attitudes and anticipated leisure benefits made it possible to cast new light on the environmental attitudes-leisure participation link. Specifically, the third proposition outlined in the beginning of this chapter (stating that the link between environmental attitudes and leisure participation may be affected by "external factors," such as anticipated leisure benefits) has been substantiated and new theoretical explanations offered for an apparently weak relationship between environmental attitudes and leisure participation.

Connections among environmental attitudes, leisure benefits and participation: To begin with, a modest link between environmental attitudes and actual leisure participation may be explained by means of a logical juxtaposition of environmental attitudes, leisure activities, and corresponding anticipated benefits. More frequent participation of the ecocentrics in nature-appreciative recreation (Table 6.4) could be easily explained by the observation that the majority of them sought benefits involving enjoying nature (Table 6.6). At the same time, as mentioned earlier, the majority of technocentric respondents were classified as "adventurous socialites," who preferred to test themselves in challenging situations and enjoy socializing. It can be speculated based on this evidence that these "benefit attributes" of the technocentric respondents might be a reason for some of them to overlook the "appreciative component" of outdoors and prefer outdoor activities which are not so much nature-appreciative as active and challenging, such as motor boating or snowmobiling. However, some outdoor pursuits that can be classified as appreciative (e.g., diving and river rafting) are also risky, challenging enough for testing skills, and can also be quite "socially charged." Thus, attaining leisure benefits characteristic of people with technocentric

attitudes is not necessarily linked to strictly consumptive or mechanized recreation. This line of reasoning may at least partially account for the lack of support for the first hypothesis stated in the beginning of this chapter and only weak support for the second one. It also finds confirmation in the data, which indicates, for example, that, indeed, variations in participation depending on environmental attitudes were mainly confined to some appreciative outdoor activities and were not typical of consumptive and mechanized pursuits (Figures 6.2 and 6.3).

Linking environmental attitudes to leisure participation through the "process model":

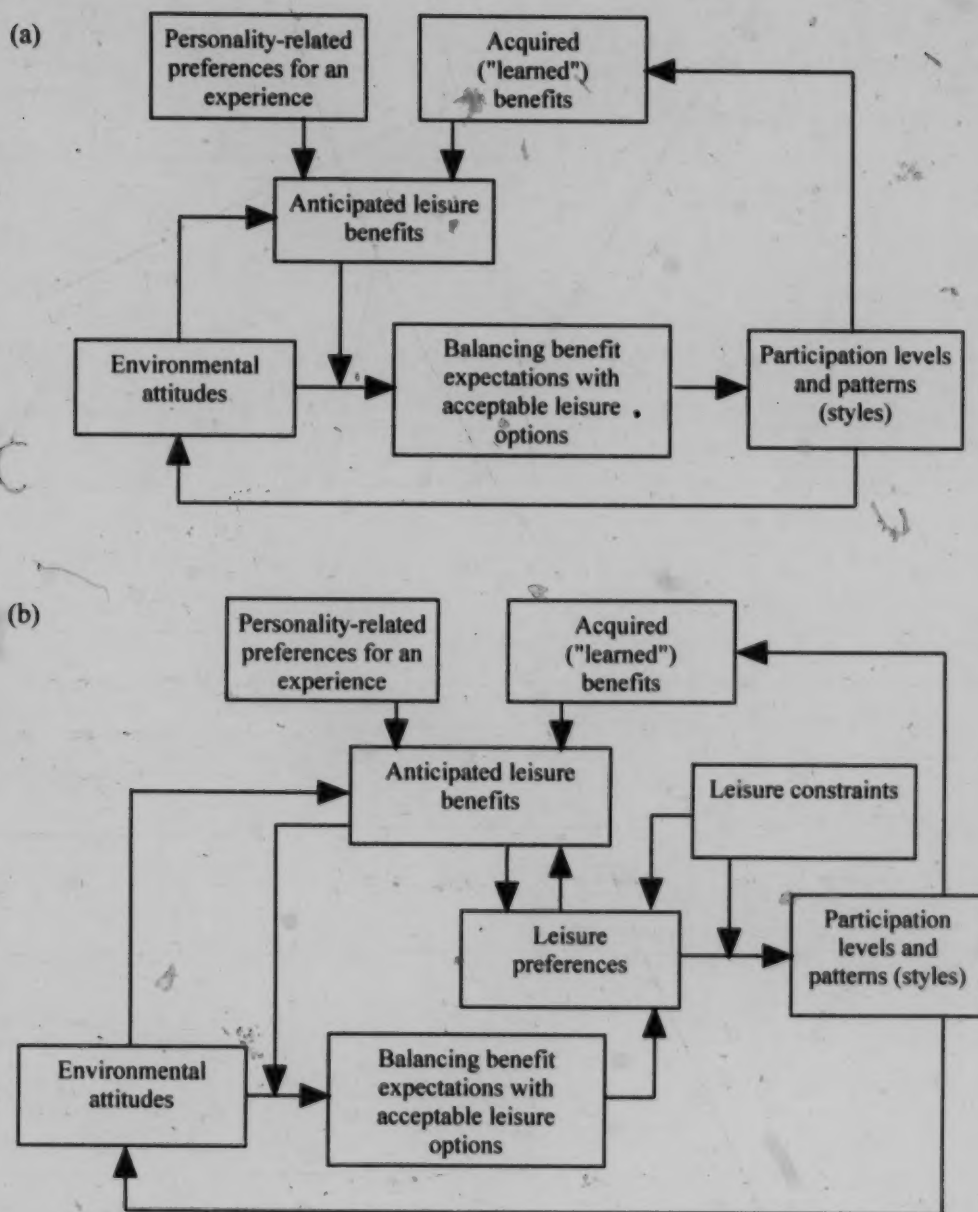
Presenting the attitudes-participation relationship as a "process model," provides an additional explanation and understanding of the ways in which environmental attitudes may be reflected in leisure behaviour. The model outlined in Figure 6.9 represents an initial step to account theoretically for the host of factors which can affect environmental attitudes-leisure participation correspondence. This model can be eventually extended beyond environmental attitudes to exploring influences of other types of attitudes on leisure behaviour.

There are a number of possible scenarios or situations involving environmental attitudes-leisure participation link that can be accounted for based on the presented model.

(1) Suppose that exposing individuals to "instances of environmental degradation" (Dunlap and Heffernan, 1975, p. 28) and educating the public can result in increased environmental concern. It does not mean, however, that a switch in environmental attitudes would automatically bring changes in leisure behaviour. The latter showed a stronger association with anticipated benefits than with environmental attitudes (see Chapter 5). Not all anticipated benefits are "learned" as a result of past experience; many of them could rather be attributed to a specific type of personality (e.g., desire for privacy, or craving risk and challenge), and hence, are not easily subjected to compromises and changes. Therefore, transforming individual leisure behaviour as a result of attitudinal change is most likely to be a gradual process. This can (at least partially) account for there being only a modest correspondence between environmental attitudes and leisure patterns.

Indeed, if environmental attitudes are at variance with anticipated leisure benefits, in order to "follow behaviourally" their values and attitudes, some people supposedly should go through a balancing or negotiation process aimed at matching the desired benefits or rewards of leisure with permissible leisure activities. In other words, a "dissonance" should be surmounted between anticipated leisure rewards ("indulging" factor) and admissible leisure options based on environmental convictions (which can become a "restraining" or "controlling" factor) (Figure 6.9a).

(2) It is possible that the "environmental attitudes-behaviour dissonance" is not realized by



Schematic presentation of the relationship between environmental attitudes and leisure participation patterns (a process model).

Figure 6.9

some people. (They may be unaware that their leisure pattern is not "environmentally friendly"). In this situation it is reasonable to expect that they simply follow their preferences, which, in turn, can result in an inconsistency between the expressed environmental views and actual leisure behaviour.

(3) Figure 6.9a shows that environmental attitudes, being an antecedent factor, may affect anticipated leisure benefits. In this case little or no dissonance might occur between these variables, and the chain of associations between environmental attitudes and leisure preferences and participation would "straighten up" (if there is no need of balancing benefit expectations with acceptable leisure options). For example, ecocentric attitudes can contribute to anticipation of leisure benefits characteristic of the "private naturalists" (Table 6.6) and eventually result in environmentally appreciative leisure.

(4) Apparently, holding technocentric attitudes does not involve a perceived "dissonance" with leisure participation choices, and might be associated with virtually any participation pattern, depending on anticipated benefits and resulting leisure preferences. This can also be true for "neutral" attitudes, which reflect general indifference toward the natural environment. The data indicated that such attitudes also may be associated with choosing "neutral" leisure activities that are neither environmentally "abusive," nor particularly appreciative (such as different sport or social engagements; Table 6.4).

Leisure constraints are also worth mentioning as potentially powerful "external" factors that can affect the association between environmental attitudes and leisure participation (Figure 6.9b).⁶ The complicated role of constraints includes them acting as "situational conditions," (opportunities to perform the behaviour; Ajzen & Fishbein, 1980; Fishbein & Ajzen, 1975), after leisure preferences have been formed (interpersonal and structural constraints), and also as derivatives of personality traits (intrapersonal leisure inhibitors affecting participation preferences) (Crawford et al., 1991).

Therefore, according to Figure 6.9b, leisure preferences can be affected both by the results of balancing attitudes with anticipated benefits and by intrapersonal constraints (if any). The latter should be surmounted in order for leisure preferences to form. Then interpersonal and structural constraints that mostly affect participation may come into play. They also should be negotiated in order to make leisure participation possible. Both leisure preferences and participation may

⁶ Leisure constraints operation is discussed in detail in the ensuing chapters.

undergo transformation as a result of the constraints negotiation process. These changes may also account for the inconsistency between environmental attitudes and leisure behaviour. The resulting participation may in turn, affect environmental attitudes and leisure benefits. These feedbacks constitute a "cyclical effect," which reflects integration and interrelationship among the components of the model.

CHAPTER 7

EXPLORING LEISURE CONSTRAINTS

Objectives of the Chapter

The current chapter steps outside the frequently criticized "limited perspective of leisure constraints" (Samdahl & Jekubovich, 1997), which has focused primarily on constraints in relation to behavioural outcomes of leisure, namely participation. It attempts to provide a more complex outlook on encountering constraints as a *process* in the broader context of "leisure choices and meanings," by introducing into the analysis variables describing other aspects of constrained leisure (e.g. inability to participate as frequently as preferred or ceasing activities because of constraints) and leisure motivations. The current chapter targets the following questions: (1) What proportion of the sample constitutes constrained individuals? (2) Which individual constraints and their types are the most/least frequently reported (experienced) by constrained respondents? (3) What are the social and demographic variations in encountering leisure constraints? (4) What is the association of the main aspects of constrained leisure with the intensity of experienced constraints and their nature? (5) Do constraints negatively affect (reduce) leisure participation? (6) Is leisure participation (its intensity and patterns) related to the *nature* of experienced constraints and if so, what are the particulars of this relationship? (7) Do constraints of different types vary in their power as potential leisure impediments and do the most frequently reported (or "intensively experienced") constraints represent the most serious leisure hindrances (in terms of participation levels)? (8) Does perception of constraints interact with different types of leisure motivations, and in what ways? (9) Do leisure constraints act as "suppressors" of motivations?

Experiencing Leisure Constraints: Basic Patterns and Associations in the Constraints Data

Individual constraint items

Overall, 203 respondents, or 68.6% of the sample, felt that their leisure was inhibited or constrained in some way (by positively responding to the questionnaire question: "Do you feel that the amount of your leisure time or the type of recreation activities that you want to do are constrained [restricted or inhibited] in any way?").

The perceived importance of the individual constraint items was assessed using a four-point response-scale, ranging from 1 = "not important," through 2 = "somewhat important" and 3 = "important," to 4 = "very important." Comparison of the relative importance of specific constraints

can be done in several ways. Using the aggregate number and percentage of those who responded "very important" and "important" as a criterion (Table 7.1), the items related to time shortages emerged as the most widely felt constraints. Constraints such as "Too busy with my work," "Home chores," and "Too busy with my family" accounted for 59.6% to 45.8% of constrained individuals and for more than a third of the sample as a whole. They were followed by the cost-related constraints, including "Admission fees or other charges for facilities and programs" (44.3%) and "The cost...of equipment, material and supplies" (35.5%). This pattern in the rank of constraints items was generally comparable with the results of previous studies (see, for example, Jackson, 1993; Searle & Jackson, 1985; and Shaw, Bonen & McCabe, 1991), adding to the credibility of the data. Mean constraint scores, which give the idea about relative *intensity* of constraints experienced, were also the highest for the time and cost-inhibited people, ranking between "somewhat important" and "important." (The remaining constraints had mean scores below the mark of 2.00, hovering between "not important" and "somewhat important").

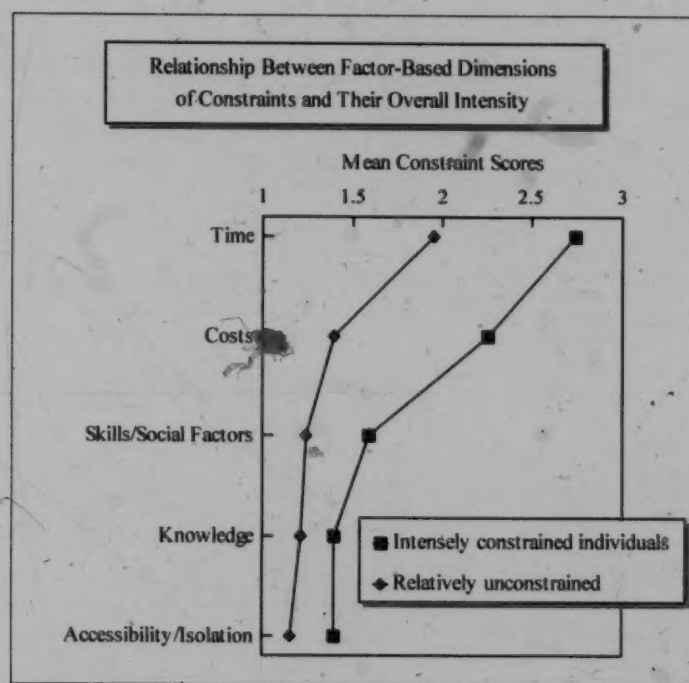
The items in the middle (rated as "very important" or "important" by between 10 and 22 per cent) were "Recreational facilities and areas are overcrowded" (21.7%), "Feel no energy and motivation" (17.7%), "It is difficult to find others to participate with" (14.3%), "The cost of transportation" (11.8%), "I do not have physical abilities" (11.3%), and "I do not feel safe or secure" (10.3%). The remaining 10 items were rated as at least "important" by less than 10% of the constrained sub-sample and by under 7% of the sample in general. They ranged from constraints such as "There is no opportunity near my home (9.4%) and "My skills are not good enough" (8.9%) to "I do not know where I can learn the activity I would like" (3.4%).

Factor-based dimensions of constraints

The generalized variations in encountering different *types* of constraints (dimensions derived from factor analysis) based on belonging to the clusters of the intensely constrained and relatively unconstrained people (Figure 7.1; one-way analysis of variance), revealed similar patterns. The chart shows a substantial gap in the overall strength of time and costs-related constraints and the remaining three types of leisure impediments, associated with the problems related to skills and social abilities, lack of knowledge about leisure opportunities, and accessibility and isolation. Time limitations yielded the highest mean scores, approaching the "important" mark for the group of constrained respondents (2.74) and still remaining at the "somewhat important" level for the relatively unconstrained group (1.95). Cost considerations followed, exceeding the "somewhat

Table 7.1
Frequency Data for Individual Leisure Constraints

Constraint Items	Number of People for Whom Constraints Were "Important" or "Very Important"	% of Constrained Individuals	% of the Sample	Mean Constraint Scores
7. Too busy with my work	121	59.6	40.9	2.68
8. Too busy with my family	99	48.8	33.4	2.48
5. Home chores	93	45.8	31.4	2.39
1. Admission fees or other charges for facilities and programs	90	44.3	30.4	2.39
6. The cost (rental or purchase) of equipment, material and supplies	72	35.5	24.3	2.16
9. Recreational facilities and areas are overcrowded	44	21.7	14.9	1.79
12. Feel no energy and motivation	36	17.7	12.2	1.74
3. It is difficult to find others to participate with	29	14.3	9.8	1.56
16. The cost of transportation	24	11.8	8.1	1.45
18. I do not have physical abilities	23	11.3	7.8	1.46
15. I don't feel safe or secure	21	10.3	7.1	1.38
14. There is no opportunity near my home	19	9.4	6.4	1.35
19. My skills are not good enough	18	8.9	6.1	1.38
10. I am not at ease in social situations	17	8.4	5.7	1.40
13. Recreational facilities are poorly kept or maintained	16	7.9	5.4	1.31
20. Consider an activity in which I would like to participate to be not entirely for my age/gender	16	7.9	5.4	1.33
17. Lack of transportation	15	7.4	5.1	1.29
4. Poor choice of facilities/programs (lack opportunities and choices)	14	6.9	4.7	1.34
21. Feel bored	14	6.9	4.7	1.33
2. I don't know where I can take part in the activity I like	13	6.4	4.4	1.31
11. I do not know where I can learn the activity I would like	7	3.4	2.4	1.20
Total Number of Constrained Individuals	203	100	68.6	



All differences are statistically significant.

Figure 7.1

important" mark for the intensely constrained people (2.25), while the relatively unconstrained respondents scored between "not important" and "somewhat important" (1.40). The means for the remaining three dimensions of leisure constraints (*Skills/Social Factors*, *Knowledge*, and *Accessibility/Isolation*) did not exceed 1.59 for both the strongly constrained and relatively unconstrained groups, indicating the overall evaluation of these constraints as only between "somewhat important" and "not important."

The main aspects of constrained leisure

A "yes"/"no" question about the general effects of constraints on one's leisure ("In what ways are your leisure and recreation pursuits constrained?") preceded a detailed checklist of individual constraint items in the questionnaire and involved the following four categories (statements about the main aspects of constrained leisure): (1) "I cannot participate as often as I would like," (2) "There are activities that I would like to start, but can't," (3) "I have stopped doing activities that I

did in the past, even though I would still like to do them," and (4) "I do not enjoy activities as much as I might otherwise." The data obtained as a result displayed insightful patterns, casting new light on the way the major effects of constraints were perceived by the surveyed individuals. The inability to participate as often as desired was the most constrained aspect of leisure (72% of the constrained sub-sample), followed by ceasing participation in past activities (57%) and failure to start a new activity (33%). At the same time, only 9 people, or 4%, reported lack of enjoyment as a result of leisure participation. These proportions indicate that, contrary to some assumptions, the impact of constraints on leisure experience, such as enjoyment or satisfaction was very small.¹ Therefore, the preliminary results on one particular variable demonstrated that as soon as people got a chance to participate, they seemed to mainly enjoy their leisure.

The results of chi-square tests presented in Table 7.2 indicate that in general, the main aspects of constrained leisure were not linked to the varied intensity of constraints nor to their nature (the clusters of constrained individuals). There was, however, a trend in the data ($p = 0.055$) suggesting that, understandably, people constrained mainly by time were somewhat more likely to be unable to participate in leisure as often as desired (81.4%), than were individuals constrained by costs (67.9%) or those who experienced a host of constraints involving isolation, lack of knowledge and other inhibitors of a personal nature (58.5%).

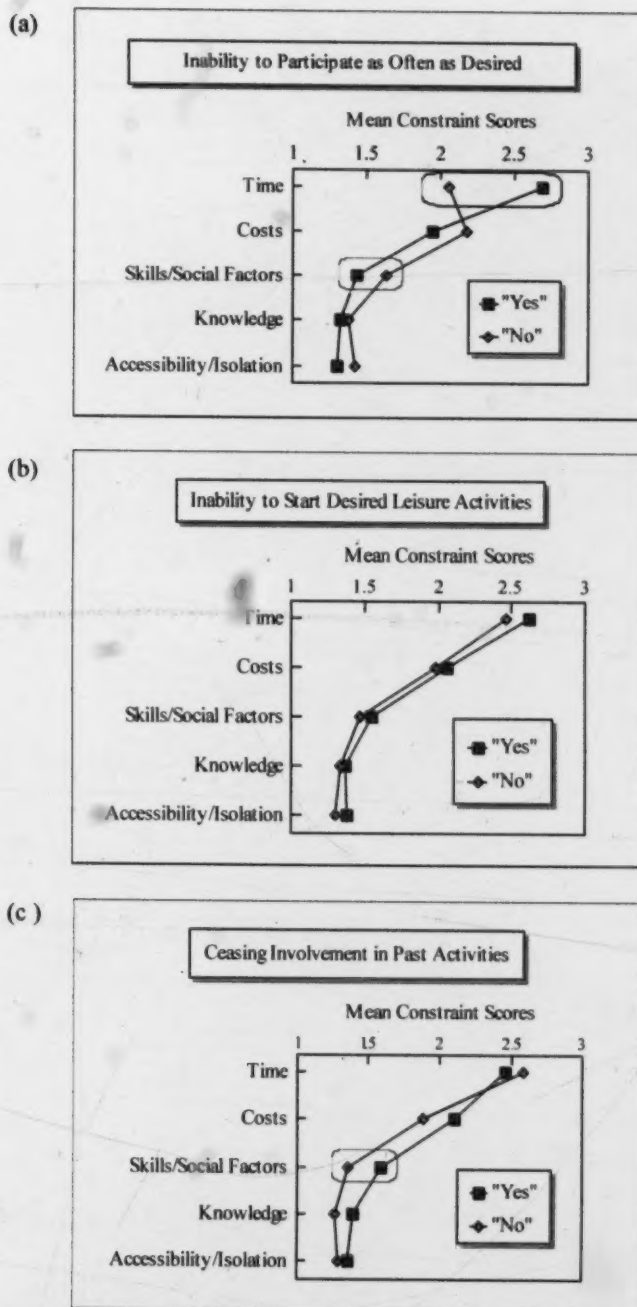
The lack of differences in the main aspects of constrained leisure with respect to the intensity of constraints experienced was somewhat unexpected: approximately three quarters of both intensely constrained and relatively unconstrained individuals expressed the desire to be more frequently engaged in leisure, and equal proportions (more than a half) of them terminated participation in wanted activities (Table 7.2). Such "unforeseen" results may be an indication of a stressed or rushed lifestyle, when people, irrespective of their leisure opportunities or perception of constraints, long for more leisure. Some clarification of this matter is provided later, in the discussion of the results in Table 7.4, obtained by using more specifically posed "frequency question," focusing not on leisure in general but on the involvement in *desired* pursuits.

More detailed analyses (based on the factor-derived dimensions of constraints; Figure 7.2) demonstrated that, consistent with the evidence discussed above, escalation of time-related

¹ Because of the small numbers of respondents involved, this particular aspect of constrained leisure was excluded from further examination

Table 7.2
Variations in Main Aspects of Constrained Leisure Depending on Intensity and Character of Constraints Experienced

Main Aspects of Constrained Leisure	Intensity of Constraints		Clusters of Constraints			
	Intensely constrained people %	Relatively unconstrained %	Isolation/Knowledge/Personal Reasons %	Costs %	Time %	
<i>Inability to participate as often as desired</i>						
Yes	71.2	75.4	58.8	67.9	81.4	
No	28.8	24.6	41.2	32.1	18.6	
Total (n)	(146)	(57)	(34)	(53)	(59)	
Chi-square; d.f.; p	0.35; 1; n.s.		5.79; 2; p = 0.055			
<i>Inability to start desired leisure activities</i>						
Yes	36.3	26.3	41.2	35.8	33.9	
No	63.7	73.7	58.8	64.2	66.1	
Total (n)	(146)	(57)	(34)	(53)	(59)	
Chi-square; d.f.; p	1.83; 1; n.s.		0.50; 2; n.s.			
<i>Ceasing involvement in activities in spite of a desire to proceed with participation</i>						
Yes	56.8	56.1	64.7	58.5	50.8	
No	43.2	43.9	35.3	41.5	49.2	
Total (n)	(146)	(57)	(34)	(53)	(59)	
Chi-square; d.f.; p	0.01; 1; n.s.		1.78; 2; n.s.			



Circled items indicate statistically significant results.

Figure 7.2

constraints showed a positive statistically significant connection with the inability to engage in leisure as often as desired (Figure 7.2a). At the same time, being not able to participate as often as wanted was somewhat less characteristic of those who experienced lack of skills or social constraints (Figure 7.2a). Instead, perception of this type of constraint was associated with ceasing participation in previous activities (Figure 7.2c). These results indicate that although time restrictions were the most frequently perceived constraints (Figure 7.1), they were not associated with ceasing participation altogether. In contrast, less frequently reported constraints involving lack of skills and uneasiness in social situations were positively linked with complete discontinuing of participation, and therefore may, in fact, represent more serious leisure obstacles compared to more frequently mentioned leisure impediments.

Socio-Demographic Variations in Constraint Variables

Reporting socio-demographic variations in the constraint data on this stage of research (as a part of the review of basic patterns and relationships in the data) was done in order to establish the credibility of the data and hence, of the following inferences related to the associations with other leisure-related variables. Consistency with previous research is an important indicator of such validity (see also the discussion of relative rank-order of constraints earlier in the chapter).

Age-based variations

The majority of people in all age-groups experienced some form of leisure constraint (Table 7.3). However, younger individuals (35 or less years old) showed more susceptibility to constraints, compared to the older respondents. While the proportion of constrained people was as high as 81.5% for the youngest respondents, it was lower among the 36 to 45 and 46 to 55-year-olds (76.1% and 72.1% respectively) and only 54.8% among the individuals aged 56 or older.

This trend did not recur, however, when age-based variations in the *intensity* of leisure constraints were analyzed. Such an outcome seems to be reasonable, taking into account that each age group may have "its own" distinctive constraints (see the ensuing discussion of variations in the nature of constraints by age), which escalate at a certain age and are less conspicuous during other life stages. The cumulative effect of different (important and not important) constraints may result in an averaging of between-age differences when the intensity of constraints is analyzed at a general level.

Table 7.3
Variations in Constraint Variables According to Age, Gender and Income

Constraint Variables:	Age				Gender		Household Income (\$)					
	35 or under	36-45	46-55	56 or over	Male	Female	30,000 or under	30,001-50,000	50,001-70,000	Over 70,000		
	%	%	%	%	%	%	%	%	%	%		
<i>Presence of Constraints</i>												
Experiencing constraints	81.5	76.1	72.1	54.8	62.4	74.3	76.7	63.2	69.6	73.5		
Unconstrained leisure	18.5	23.9	27.9	45.2	37.6	25.7	23.3	36.8	30.4	26.5		
Totals (n)	(54)	(67)	(68)	(93)	(117)	(175)	(43)	(68)	(56)	(102)		
Chi-square; d.f.; p	14.57; 3; p = 0.002				4.68; 1; p = 0.031		3.01; 3; n.s.					
<i>Intensity of Constraints</i>	%	%	%	%	%	%	%	%	%	%		
Intensely constrained	68.2	76.5	69.4	72.5	63.0	76.9	81.8	76.7	76.9	64.0		
Relatively unconstrained	31.8	23.5	30.6	27.5	37.0	23.1	18.2	23.3	23.1	36.0		
Totals (n)	(44)	(51)	(49)	(51)	(73)	(130)	(33)	(43)	(39)	(75)		
Chi-square; d.f.; p	0.98; 3; n.s.				4.48; 1; p = 0.034		4.94; 3; n.s.					

Table 7.3 (Continued)

Constraint Variables:	Age			56 or over	Gender		Household Income (\$)			
	35 or under	36-45	46-55		Male	Female	30,000 or under	30,001-50,000	50,001-70,000	Over 70,000
<i>Dimensions of Constraints (Variations in means)</i>										
1. Time	2.74	2.80	2.52	2.04	2.40	2.58	2.33	2.42	2.62	2.71
2. Costs	2.06	1.93	2.13	1.88	1.99	2.02	2.51	2.29	2.21	1.56
3. Skills/Social Factors	1.30	1.42	1.47	1.77	1.32	1.58	1.80	1.69	1.34	1.33
4. Knowledge	1.43	1.27	1.37	1.27	1.24	1.40	1.46	1.47	1.36	1.23
5. Accessibility/Isolation	1.28	1.25	1.25	1.52	1.24	1.38	1.57	1.40	1.31	1.18
1. F = 8.79; d.f. = 3; p = 0.000										
2. F = 0.91; d.f. = 3; n.s.										
3. F = 6.12; d.f. = 3; p = 0.001										
4. F = 1.10; d.f. = 3; n.s.										
5. F = 3.72; d.f. = 3; p = 0.012										
1. F = 2.07; d.f. = 1; n.s.										
2. F = 0.04; d.f. = 1; n.s.										
3. F = 9.78; d.f. = 1; p = 0.002										
4. F = 4.33; d.f. = 1; p = 0.039										
5. F = 3.75; d.f. = 1; p = 0.054										
1. F = 1.93; d.f. = 1; n.s.										
2. F = 15.29; d.f. = 3; p = 0.000										
3. F = 8.01; d.f. = 3; p = 0.000										
4. F = 2.38; d.f. = 3; p = 0.072										
5. F = 5.62; d.f. = 3; p = 0.001										
<i>Clusters of Constraints</i>										
Isolation/Knowledge/Personal Reasons	%	%	%	%	%	%	%	%	%	%
Costs	6.7	20.5	20.6	40.5	15.2	27.0	44.4	30.3	20.0	8.3
Time	46.7	28.2	41.2	35.1	52.2	29.0	37.0	42.4	40.0	29.2
Totals (n)	46.7 (30)	51.3 (39)	38.2 (34)	24.3 (37)	32.6 (46)	44.0 (100)	18.5 (27)	27.3 (33)	40.0 (30)	62.5 (48)
Chi-square; d.f.; p	14.31; 6; p = 0.026			7.55; 2; p = 0.023		22.17; 6; p = 0.001				

There were also statistically significant age-based variations in the *nature* of constraints experienced. Analyses of variance involving dimensions of constraints derived from factor analysis resulted in significant age-based variations in three of the five dimensions (*Time*, *Skills/Social Factors*, and *Accessibility/Isolation*).

- Consistent with previous research, time-related constraints showed an inverted U-shaped relationship with age.² People in the "early middle-age category" (aged 36 to 45) were the most constrained by time (mean constraint score reaching 2.80), whereas constraints of this type tended to be somewhat less important for those who were 35 or younger (2.74) and were substantially less important for the people of advanced age. (The mean scores were 2.52 for the 46 to 55-year-olds and 2.04 for the oldest respondents aged 56 or more).
- Scores on the *Costs* dimension were also somewhat lower among the people of pre-retirement and retirement age (56 or more years old), compared to the younger age-groups. The result, however, was not statistically significant.
- On the other hand, constraining elements related to skills and social factors were relatively more pronounced among the older respondents. Those who were 35 or younger scored the lowest on the *Skills/Social Factors* dimension, while the oldest age-group (56 or older) yielded the highest scores.
- The problems of accessibility and isolation did not show any variation up to the age of 55, but were of relatively high importance for the respondents aged 56 or older.
- Experiencing lack of knowledge showed no statistically significant variations with age. However, the youngest respondents scored somewhat higher on the *Knowledge* dimension in comparison with other, older, age-groups.

The following age-related differences emerged as the result of a more generalized analysis, based on the cluster groups of constrained individuals:

- The evidence suggests that constraints such as isolation, lack of adequate knowledge to participate, or various personal constraints affected mostly the oldest people. A very small percentage of the youngest respondents (35 or younger) belonged to the corresponding cluster group (6.7%). This proportion was equal (slightly higher than 20 %) among the middle-aged individuals (36 to 55 years of age) and was twice as high (40.5%) among the oldest

² Time-linked constraints exhibited somewhat "skewed" inverted U-shaped relationship with age, due to an increased data aggregation (younger age-groups were combined in a single "35 or less" category, because of a relatively small size of the sample).

respondents (56 or older).

- Somewhat uneven percentage distribution of cost-constrained individuals showed less profound between-age differences, although there was an indication that a smaller proportion of the oldest respondents experienced financial difficulties in pursuing their leisure (35.1%), compared to the youngest age-group (46.7%).
- Variations in the cluster of respondents constrained primarily by time were similar to the age-based associations, which emerged for the *Time* dimension. Time inhibitors were clearly more important for the younger people. Roughly half of the respondents who were 45 and younger reported experiencing time shortages, whereas only 38.2% of the 45 to 55-year-olds and 24.3% of those who were 56 or older were time-constrained.

Gender-based variations

The data demonstrated that in general females were more affected by leisure constraints. A higher proportion of females experienced some form of constraint (74.3%), compared to males (62.4%). Also, the percentage of intensively constrained females (76.9%) exceeded the proportion of males in the same category (63.0%).

Two out of the five dimensions of constraints (*Skills/Social Factors* and *Knowledge*) revealed statistically significant gender-based variations. The mean scores demonstrated that both types of constraint were more characteristic of females than of males.

As far as gender-based variations in the clusters of constrained individuals were concerned, the issues of isolation, lack of knowledge, and/or personal inhibitors, and also time shortages were slightly more characteristic of women than of men. A higher proportion (27.0%) of females belonged to the *Isolation/Knowledge/Personal Reasons* cluster, compared to 15.2% of males. Likewise, 44.0% of females and only 32.6% of males were constrained by time. However, concerns about costs of participation prevailed among men: 52.2% of them were members of the corresponding cluster, compared to only 29.0% of women.

Income-based variations

There was no significant relationship between the presence and intensity of constraints and income. However, many significant income-based variations occurred in the *character* of experienced constraints.

Analyses of variance involving dimensions of constraints provided a specific outlook on the income-based associations. Although time-related mean constraint scores were higher for the high income-groups, the results were not statistically substantiated. Costs-related variations were significant and clearly demonstrated that financial considerations were less important for the people with higher household incomes, compared to the residents of low income households. The remaining dimensions of constraints (*Skills/Social Factors*, *Knowledge* [not significant; $p = 0.072$], and *Accessibility/Isolation*) were also less important for the people with relatively high incomes than to the poorer respondents. Overall, the data demonstrated that income could play a very substantial role in "leisure freedom." As a rule, the least constrained individuals were those with relatively high household incomes.

More general, cluster-based analyses also produced statistically significant results.

- There were striking income-related differences in encountering constraints involving isolation, lack of knowledge about opportunities and various personal inhibitors (*Isolation/Knowledge/Personal Reasons* cluster). Constraints of this nature were the most typical of low-income respondents (household income of \$30,000 and under). Almost half of them (44.4%) reported experiencing this sort of leisure impediment. This percentage was twice as low (20.0%) among the people whose household income ranged from \$50,001 to \$70,000 and was only 8.3% among the wealthiest income-group (over \$70,000).
- Income-based fluctuations in the *Costs* cluster were not so conspicuous, and the proportion of costs-affected respondents was quite high (one-third or more) in each income-group. The richest group, nevertheless, showed somewhat lower concern about financial matters.
- Time-related constraints were obviously more important for the higher income individuals. As high as 62.5% of the richest respondents (household incomes exceeding \$70,000) and 40.0% of people whose household incomes ranged between \$50,001 and \$70,000 belonged to the *Time* cluster. At the same time, only 27.3% of the respondents with household incomes ranging from \$30,001 to \$50,000 and as low as 18.5% of the individuals with household income of \$30,000 and less were predominantly time-constrained.

Summary of socio-demographic variations in leisure constraints

The types of emerged associations were generally similar to those of previous studies (e.g., Jackson, 1993; Jackson & Dunn, 1991; Jackson & Henderson, 1995; Searle & Jackson, 1985). The following examples of such correspondence may be highlighted:

- Time-related constraints exhibited age-based associations similar to the inverted-U patterns characteristic of previous studies.
- Generally, leisure constraints were more frequently and intensely experienced by females compared to males.
- Costs-related issues tended to be less important, albeit time restrictions more critical for the higher-income groups of respondents compared to their less wealthy counterparts.

Leisure Constraints and Participation

Variations in leisure participation resulting from the presence and intensity of constraints

According to the data presented in Table 7.4 experiencing leisure constraints as well as their relative strength generally did not affect the intensity of participation. There were no differences in the proportions of active and inactive leisure participants among constrained and completely unconstrained respondents, nor in the cluster of relatively intensely constrained people, compared to the cluster made up of people whose leisure was not strongly affected by constraints. Therefore, statistical inferences suggest that leisure constraints typically do not negatively interfere with participation by reducing leisure activity involvement. These results are consistent with the findings of Kay & Jackson (1991) and Shaw, Bonen, & McCabe (1991), who came to a similar conclusion that there was not necessarily an inverse relationship between leisure constraints and participation. The recurrence of this seemingly "unexpected" finding in the present study does not invalidate the investigation of leisure constraints, but, on the contrary, may rather indicate the presence of additional factors affecting constrained leisure (or imply that the link between constraints and participation may be not direct). Therefore, the analysis of connections with other variables that might play a role in leisure decision-making, including leisure motivations, as well as constraints negotiation patterns, becomes very important for understanding the constraint-participation relationship.

The data also demonstrated that encountering constraints by itself generally did not affect the character of activity engagement (participation styles). There were no significant variations in the activity cluster membership among constrained and completely unconstrained individuals and strongly or weakly constrained people.

However, there was a significant negative relationship between both the presence and intensity of constraints and frequency of involvement in *desired* leisure (Table 7.4). Less than half of the people who experienced some constraints were able to do what they wanted for leisure "most of

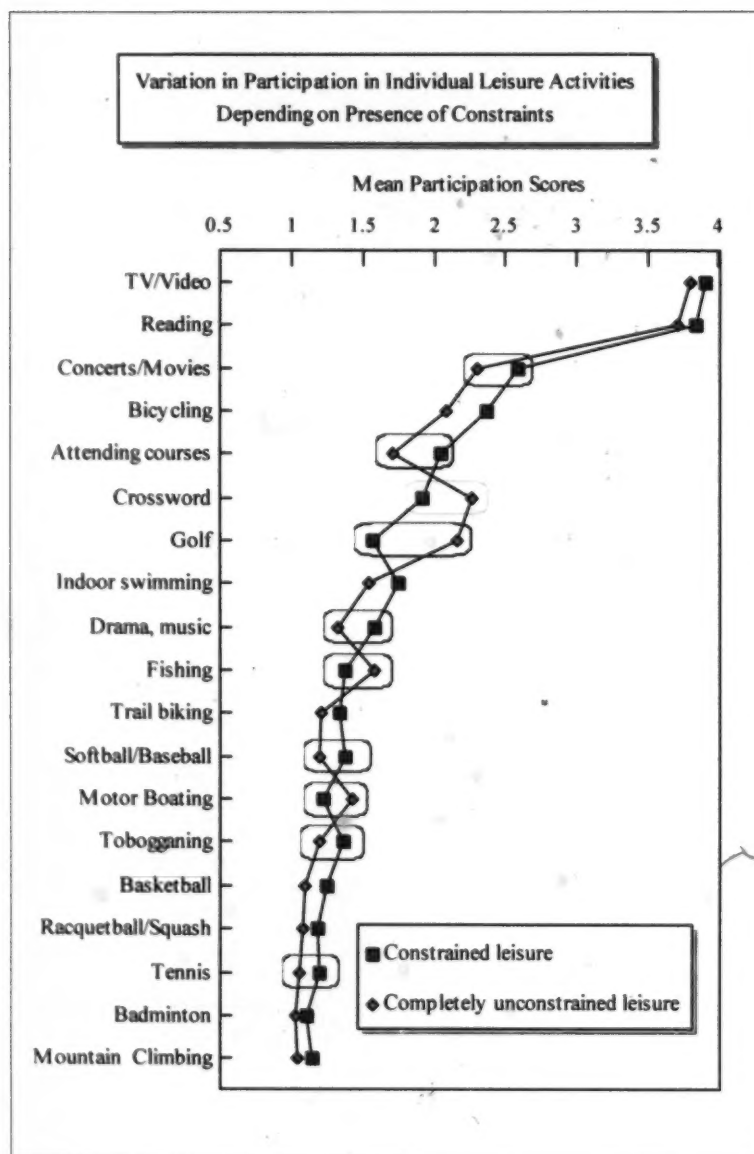
Table 7.4

Variations in Activity Participation and Frequency of Involvement in Desired Leisure Depending on Presence of Leisure Constraints and Their Overall Intensity

	Presence of Constraints		Intensity of Constraints	
	Experiencing some leisure constraints %	Completely unconstrained leisure %	Intensely constrained people %	Relatively unconstrained individuals %
<i>Intensity of Activity Participation</i>				
Active participants	50.2	47.3	50.0	50.9
Inactives	49.8	52.7	50.0	49.1
Totals (n)	(203)	(91)	(146)	(57)
Chi-square		0.23		0.01
d.f.		1		1
p		n.s.		n.s.
<i>Clusters of Leisure Activities</i>				
Physically/Socially Active	39.2	27.9	35.6	48.3
Intellectual/Home-Based Hobbies	60.8	72.1	64.4	51.7
Totals (n)	(102)	(43)	(73)	(29)
Chi-square		1.68		1.40
d.f.		1		1
p		n.s.		n.s.
<i>Frequency of Involvement in Desired Leisure Pursuits</i>				
Most of the time / Always	41.9	86.8	37.0	54.4
Some of the time / Never	58.1	13.2	63.0	45.6
Totals (n)	(203)	(91)	(146)	(57)
Chi-square		51.45		5.10
d.f.		1		1
p		0.000		0.024

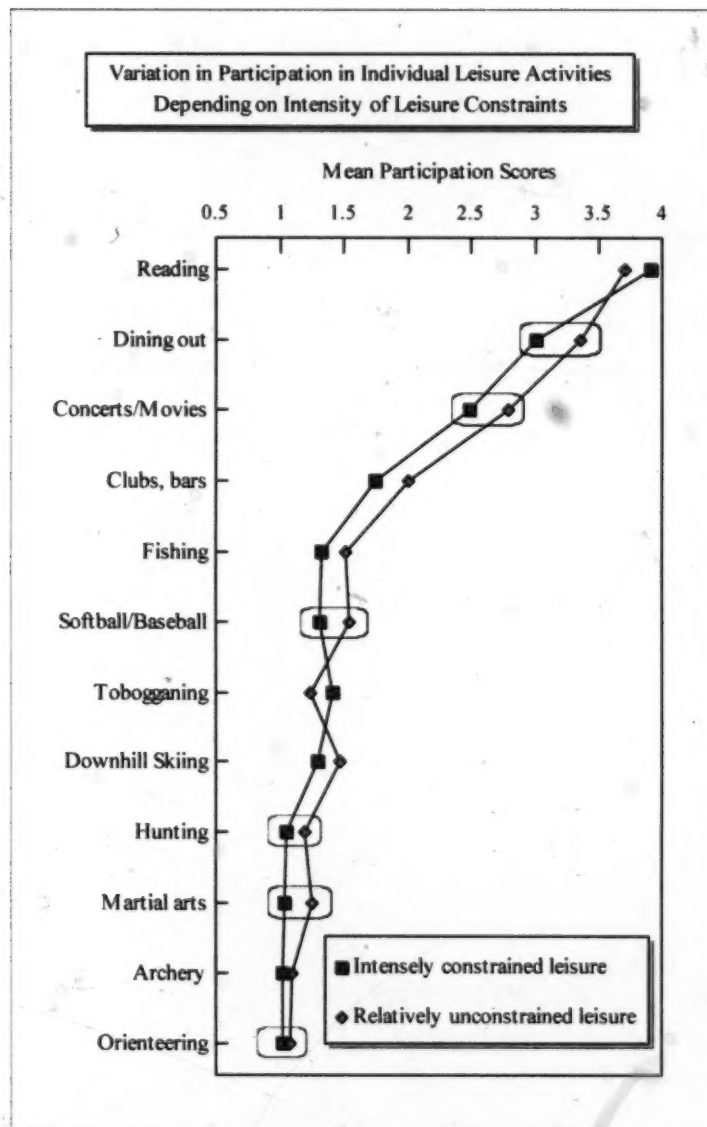
the time" or "always" (41.9%), whereas the vast majority of the respondents who were not subjected to any constraints (86.8%) reported frequent involvement in their preferred activities. A less strong, but still statistically significant, association occurred when the relative intensity of constraints was used as the independent variable. A higher proportion of weakly constrained individuals (54.4%) reported involvement in wanted leisure "most of the time" or "always," compared to the cluster of people who experienced a stronger influence of leisure constraints (37.0%). The reason for a seeming "inconsistency" of these outcomes with the data presented earlier in Table 7.2 may lie in different approaches to the data examination. While there was an equally high desire for more leisure in general among all (intensely and not intensely) constrained respondents (Table 7.2), singling out an issue of favourite or *desired* pursuits yielded different results, indicating a negative link with experiencing constraints (Table 7.4).

While the statistical inferences summarized above targeted the relationship between leisure constraints and participation at the highest level of generality, the results of the analyses of variance presented in Figures 7.3 and 7.4 represent the most specific tests, involving individual leisure activities. (Only statistically significant and tentative results were plotted on the graphs). The data indicate that, in the majority of cases, encountering constraints was not associated with any participation change compared to the completely unconstrained leisure (Figure 7.3). Sixty five out of the 77 original activity questionnaire items (84%) did not show significant (positive or negative) variations in mean scores among constrained and completely unconstrained individuals, demonstrating once again, at a very specific analytical level, a high degree of consistency with Shaw et al.'s (1991) finding. In eight cases, however, which involved diverse activities, such as going to concerts, attending educational courses, taking part in drama and music, tobogganing, playing softball, and tennis, the link was statistically significant and positive, indicating that *sometimes* the presence of leisure constraints was associated with a slightly higher participation. (Bicycling and indoor swimming also exhibited a tendency for a higher participation in spite of constraints). Conversely, participation in 4 other pursuits (crossword puzzles, motor boating, fishing, and especially golf) was significantly and negatively correlated with the presence of constraints: those who were entirely free from leisure impediments showed a slightly higher participation in these activities than constrained individuals. The results suggest that although in general, experiencing leisure constraints seemed to be "neutral" to participation, not causing significant changes in the frequencies of activity involvement, in some cases the magnitude and direction of the links varied depending on the type of leisure engagements.



Circled items indicate statistically significant results.

Figure 7.3



Circled items indicate statistically significant results.

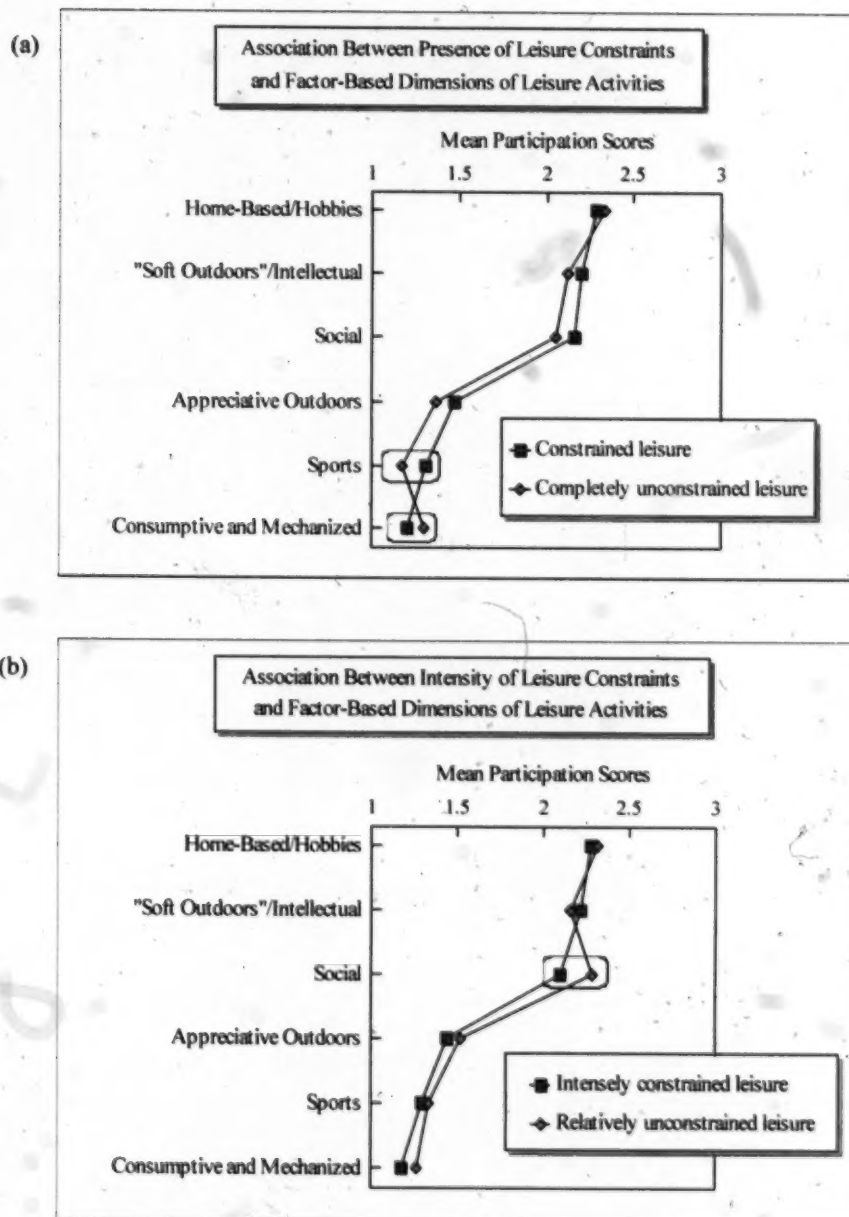
Figure 7.4

The results of the analyses of relationships between the relative *intensity* of constraints and participation in specific leisure activities (Figure 7.4) also revealed a prevailing "neutrality," or lack of significant associations already observed in the outcomes of generalized chi-square tests in Table 7.4. Among the 77 original activity cases only 7 items, or 9%, showed not conspicuous, but still statistically significant variations in mean scores. Unlike the analyses which differentiated between constrained and completely unconstrained individuals (Figure 7.3), the results graphed in Figure 7.4 involved mostly negative associations. Members of the cluster amalgamating more intensely constrained individuals participated slightly less frequently in such activities as dining out, going to concerts, playing softball or baseball, hunting, practising martial arts, and orienteering than members of the relatively unconstrained cluster. The only exception was reading, with more intensely constrained people exhibiting somewhat higher participation frequencies than weakly constrained respondents.

Figure 7.5a,b contains the results of the analyses of the same associations as shown in Figures 7.3 and 7.4, but on a more general level (factor-based dimensions of activities being used as the dependent variables). Consistent with the previously described patterns, the majority of activity dimensions showed no variation with the presence and intensity of constraints, and statistically significant differences were not large.

The nature of experienced constraints and participation patterns

Table 7.5 provides generalized information on associations between the types of constraints experienced and participation patterns. Clusters of leisure activities were used as the independent variable, because otherwise the analysis would have resulted in unacceptably low total column numbers. The data indicate a strong association between the types of leisure constraints encountered and distinctive participation styles. An apparent positive link emerged between pursuing intellectual leisure, hobbies, and home-based recreation and constraints such as isolation, lack of knowledge, or varied personal impediments. At the same time, it was clear that constraints of this type were less relevant to the participants in physically and socially intense leisure: only 3.8% of them experienced mentioned leisure hindrances, compared to 34.8% of members of the *Intellectual, Hobbies and Home-Based* activity cluster. Conversely, problems of time were listed more frequently by physically and socially active people (61.5%) than by the adherents of intellectual, home-based activities, or hobbies (31.9%). Costs-related constraints showed no association with the nature of activity involvement.



Circled items indicate statistically significant results.

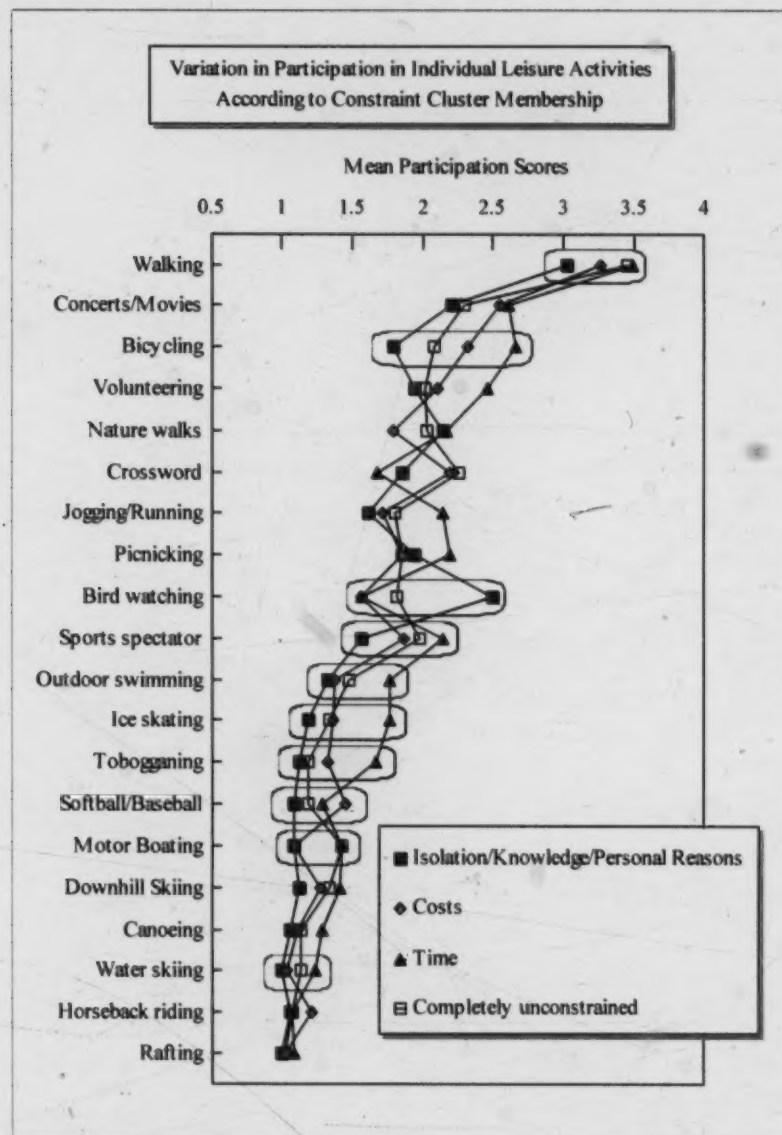
Figure 7.5

Table 7.5
Activity-Based Variations in Constraints Encountered

	Clusters of Activities	
	Physically/Socially Active %	Intellectual/Hobbies/ Home-Based %
Isolation/Knowledge/Personal Reasons	3.8	34.0
Costs	34.6	34.0
Time	61.5	31.9
Totals (n)	(26)	(47)

Chi-square = 10.02; d.f. = 2; p = 0.007

Figure 7.6 uncovers a more complicated picture of the interrelationships between constraints and participation, by providing a specific outlook on the variations in participation in *individual activities* depending on the character of leisure constraints (clusters of constrained individuals). To enhance the comparison of the emerged patterns, mean participation scores associated with completely unconstrained leisure were also introduced for each of the graphed activities. The displayed results of the analyses of variance provided an additional (and vivid) confirmation of the finding that, in some instances, constrained leisure might be distinguished by a higher activity involvement in comparison to leisure unaffected by constraints (mean participation scores associated with the completely unconstrained leisure were apparently not the highest ones in many cases). Furthermore, there was evidence that the *character* of participation may also vary depending on the nature of constraints encountered. For instance, constraints involving isolation, lack of knowledge or various personal factors were mainly associated with the lowest or second lowest participation levels, with the exception of bird watching and nature walks. In the first case respondents belonging to the mentioned constraint cluster had the highest mean participation score, which far exceeded the participation level of unconstrained people. These results are easy to interpret based on the logical inference that such activity as bird watching does not require intensive socializing, special knowledge and skills, or physical abilities. Therefore, it suits individuals constrained in these areas, compared to those who were inhibited by mainly time or costs. The second case (nature walks) involved a very similar activity and hence, displayed



Circled items indicate statistically significant results.

Figure 7.6

somewhat similar results.

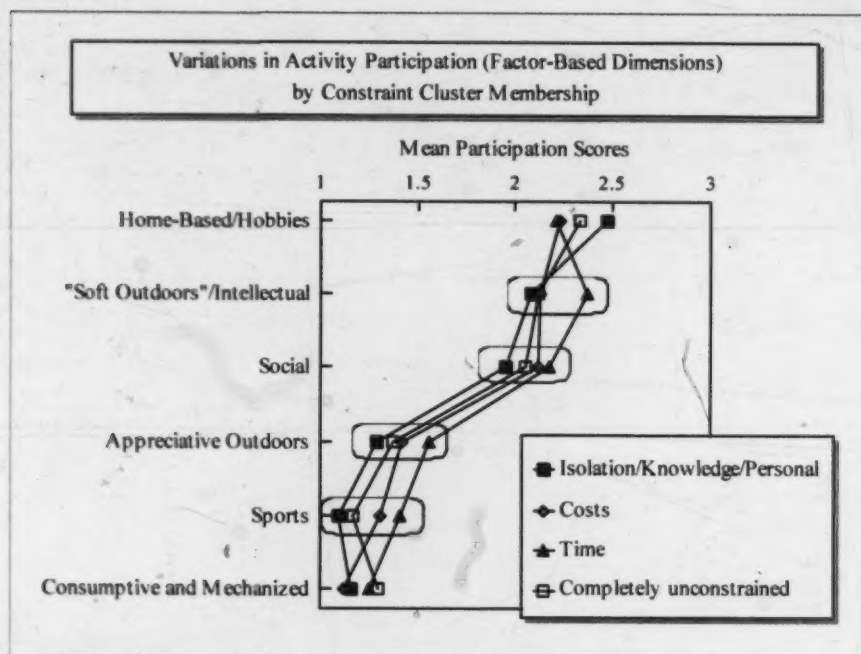
Conversely, the data indicate that the vast majority of the cases with frequencies of participation exceeding or approaching "unconstrained" levels, were associated with time-related constraints. This suggests that time-restricted individuals were supposedly the most "negotiation-prone" ones and preferred (and were able) to handle their constraints more effectively, compared to the people, who encountered constraints of a different nature (see the following chapter on constraints negotiation).

A more general version of the same type of association (Figure 7.7; based on the factor-derived dimensions of activities) resulted in less contrasting (although mostly statistically significant) differences. Similar to the activity-specific associations displayed in Figure 7.6, respondents susceptible to leisure impediments such as feeling isolation and lack of awareness about leisure opportunities, as well as an array of personal constraints including lack of social and other skills (*Isolation/Knowledge/Personal Reasons* cluster), tended to have the lowest participation scores (with the only exception of the group of activities related to hobbies and home-based recreation). This indicates that constraints of this nature might be more "prone" to negative associations with participation compared to other types of leisure hindrances.

Leisure constraints and participation: connections and conclusions

The following important conclusions can be drawn based on the data presented in the preceding sections. Comparison of the results of the analyses displayed in Figures 7.1, 7.6, and 7.7 shows that, at least on some occasions, seemingly "least intensely" experienced constraints, such as isolation, lack of knowledge or social and other skills, were associated with the lowest activity participation levels, whereas time commitments, which were perceived to be the most important leisure hindrances, were linked to the increased participation, often surpassing frequencies characteristic of completely unconstrained individuals.

This finding is consistent with patterns that can be detected in the existing empirical constraints literature. For example, Shaw et al. (1991) also observed that constraints which were reported more frequently were associated with increased, rather than decreased, participation. While "those who reported lack of time showed disproportionately high levels of participation" (p. 298), constraints that could be classified as various "personal reasons," including low energy, lack of self-discipline, and ill health, were negatively linked to the mean participation level. Hence, consistent empirical evidence indicates that the strength of constraints experienced does not always



Circled items indicate statistically significant results.

Figure 7.7

mean their high *power* in terms of ultimate negative participation effects, and that the most frequently reported constraints do not necessarily mean the most serious leisure barriers (see question # 7 in the Objectives of the Chapter). On the contrary, less frequently identifiable and mentioned constraints may represent more powerful, "hidden leisure obstacles," due to their more complicated character (largely of an intrapersonal or interpersonal nature, related to self-confidence, fears, social skills, etc.), compared to such relatively "simple" and obvious issues as lack of time.

This evidence concurrently provides verification to and could be explained by the theoretical interpretation of leisure constraints as being sequentially encountered and negotiated. Crawford et al. (1991) and Jackson et al. (1993) conceptualized intrapersonal constraints, which "involve individual psychological states and attributes" as being most powerful, followed by interpersonal, and only lastly by structural constraints, including time shortages. Belonging to the *Time* cluster (Figure 7.6) means that its members were inhibited primarily by this type of constraint, while

largely "passing by" the first two supposedly most difficult levels of leisure inhibitors. This can explain the ability of time-restricted individuals to enjoy relatively high frequencies of participation in the majority of shown activities.

The data in Table 7.4 indicate that, while there were no general variations in participation between constrained and unconstrained or strongly and weakly constrained individuals, lower proportions of constrained or relatively intensely constrained individuals were able to be engaged in wanted leisure the majority of the time, compared to unconstrained or weakly constrained respondents. This indicates that people might prefer to modify their participation rather than reduce or completely foreclose it (Jackson et al., 1993), including substitution of the "first choice" pursuits with other, more "available" activities. There was indirect evidence in support of this point, including constraint-related participation patterns displayed in Figure 7.6. For example, "flexible," undemanding and easy to fit in a busy schedule activities such as walking, jogging, and bicycling enjoyed high popularity among time-restricted individuals. They might represent an easy substitution for more desirable, but time-consuming and therefore unattainable pursuits. Likewise, softball and/or baseball and solving crossword puzzles were more "popular" among costs-constrained individuals, the first one being a possible cost-effective alternative of pursuing interests in sport.

The other important observation is related to the issue of leisure satisfaction. While large proportions of constrained and intensely constrained individuals reported an inability to reach an intended frequency of involvement in desired leisure activities (Table 7.4), the vast majority (96%) of people who experienced constraints, responded negatively to the questionnaire statement: "I do not enjoy activities as much as I might otherwise." This indicates that while people might not always be able to engage in their favourite leisure, they generally enjoyed it anyway.

Relationship Between Leisure Constraints and Motivations

According to Crawford et al. (1991), "leisure researchers cannot afford to investigate the phenomena in which they are interested in isolation from other factors that influence leisure choices" (p. 318). The next set of statistical results represents an attempt to address empirically the issue of links between leisure constraints and motivations (including anticipated leisure benefits and the value that people place on their leisure). It has been repeatedly mentioned in the constraints literature that constraints cannot be isolated from motivation for participation. Jackson et al. (1993) developed a "balance" proposition, stating that "the outcome and response to leisure

constraints may be viewed as a function of the interaction, or balance, between constraints and motivations" (p. 8). However, *specific* questions, such as in *what particular ways* do different types of motivations interact with constraints and fit into the constraints-participation relationship, have remained empirically unaddressed.

In the majority of statistical procedures performed in this study, constraint-related variables were assigned an "independent" status, based on the assumption that leisure constraints might play a role in shaping other leisure experiences, for example, affecting leisure preferences. However, the supposed relationship between leisure constraints and motivations is most likely a very dynamic and interactive process. Therefore, the question of which variables should be "dependent" and which should be "independent" remains open.

Constrained leisure and leisure motivations: general connections

Table 7.6 provides a general overview of associations between leisure constraints and motivations. Three associations turned out to be statistically significant. An important finding resulting from the analyses was consistent evidence that leisure motivations were generally *positively* associated with experiencing constraints. A higher percentage of people who encountered constraints described leisure as "very important" (64.4%), compared to unconstrained respondents (50.0%). Likewise, constrained individuals enjoyed a somewhat bigger proportion of "optimists" (people having high leisure expectations), compared to the completely unconstrained respondents (84.2% and 71.9% respectively).

However, evidence related to the overall intensity of constraints experienced indicates that leisure *strongly* affected by constraints may be associated with lower motivation. While members of the cluster amalgamating relatively intensely constrained people more frequently described their leisure as "important" (40.3%) than those belonging to the relatively unconstrained cluster (24.0%), the percentage of respondents who considered their leisure to be "very important" was higher in the weakly constrained cluster (76.0%), compared to the cluster which was more affected by constraints (59.7%). This evidence, however, was not corroborated in the analysis involving the magnitude of anticipated benefits.

There were no associations between the presence and intensity of constraints and the nature of perceived leisure benefits (membership in the clusters of anticipated benefits, including *Adventurous Socialites*, *Private Naturalists*, or *Appreciative Optimists*). There were also no variations in the general measures of motivation (importance of having leisure and the overall

Table 7.6
Relationships Between Constrained Leisure and Leisure Motivations

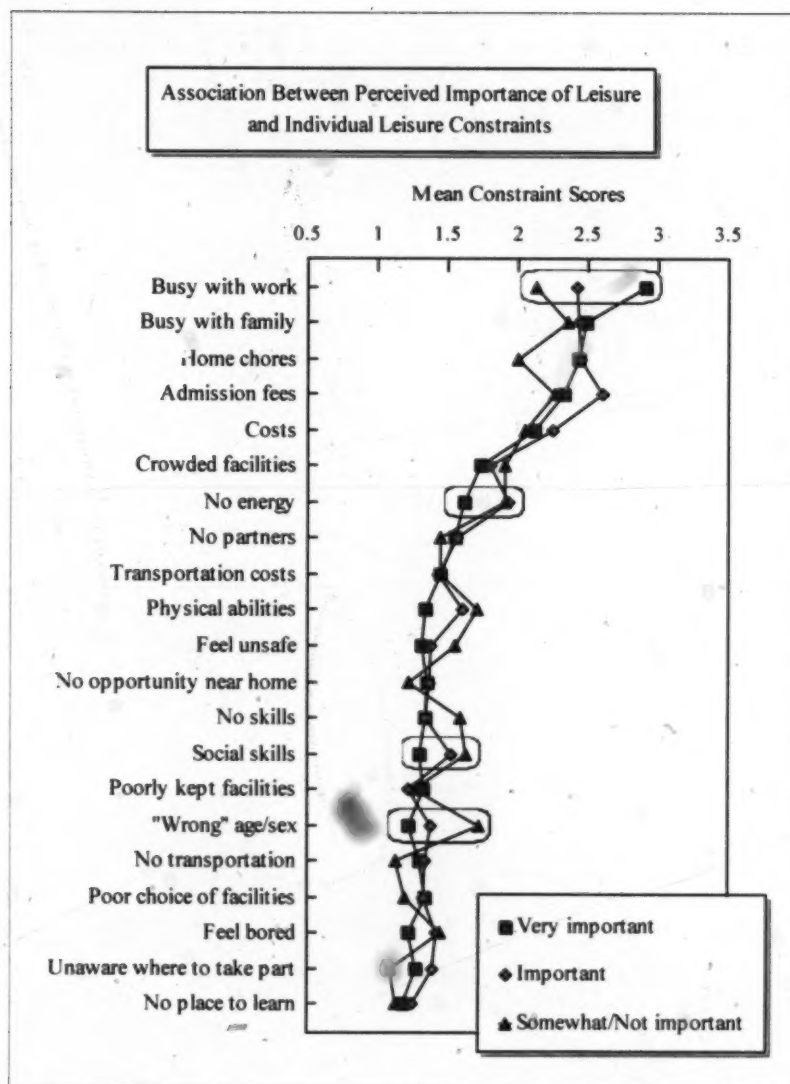
Motivation Variables	Presence of Constraints		Intensity of Constraints		Clusters of Constraints		
	Experiencing some constraints	Completely unconstrained leisure	Intensely constrained people	Relatively unconstrained individuals	Isolation/Knowledge/Personal Reasons	Costs	Time
<i>Importance of Having Leisure</i>	%	%	%	%	%	%	%
Important	35.6	50.0	40.3	24.0	44.4	40.0	38.5
Very important	64.4 (174)	50.0 (76)	59.7 (124)	76.0 (50)	55.6 (27)	60.0 (45)	61.5 (52)
Total (n)	4.54; 1; p = 0.033		4.13; 1; p = 0.042		0.27; 2; n.s.		
<i>Intensity of Anticipated Benefits</i>	%	%	%	%	%	%	%
Optimists	84.2	71.9	85.6	80.7	91.2	81.1	86.4
Pessimists	15.8 (203)	28.1 (89)	14.4 (146)	19.3 (57)	8.8 (34)	18.9 (53)	13.6 (59)
Total (n)	5.98; 1; p = 0.014		0.75; 1; n.s.		1.75; 2; n.s.		
Chi-square; d.f.; p							
<i>Clusters of Benefits</i>	%	%	%	%	%	%	%
Adventurous Socialites	31.0	29.7	30.4	32.6	12.9	32.6	39.2
Private Naturalists	38.6	32.8	40.0	34.8	54.8	44.2	27.5
Appreciative Optimists	30.4	37.5	29.6	32.6	32.3	23.3	33.3
Total (n)	171	64	125	46	31	43	51
Chi-square; d.f.; p	1.17; 2; n.s.		0.39; 2; n.s.		9.29; 4; p = 0.054		

intensity of anticipated benefits) depending on the nature of constraints. However, there was a discernible trend in the data suggesting differences in the *nature* of anticipated benefits depending on the character of constraints encountered. For example, higher percentages of people affected by time limits and costs (39.2% and 32.6% respectively) belonged to the cluster of *Adventurous Socialites*, who expected leisure benefits such as risk-taking, skills-testing, showing leadership, and gaining social recognition, in comparison to those who felt isolated, lacking knowledge, or faced a variety of personal inhibitors (12.9%). At the same time, a lower proportion of time-restricted individuals (27.5%) were classified as *Private Naturalists* (a group of people anticipating privacy and enjoying nature), whereas high percentages of people who faced isolation, lack of knowledge, personal impediments, and also financial constraints "costs;" (54.8% and 44.2% respectively) expected this type of benefit as a result of their leisure. The benefit cluster of *Appreciative Optimists* showed no proportional variation according to the nature of experienced constraints, indicating that each group (cluster) of constrained people contained roughly equal proportions of individuals (around one-third) who exhibited no "specialization" by expecting certain types of leisure benefits, but instead expressed a high degree of general optimism and positive attitude towards leisure by anticipating a broad variety of leisure-related gains.

Leisure constraints and perceived importance of leisure

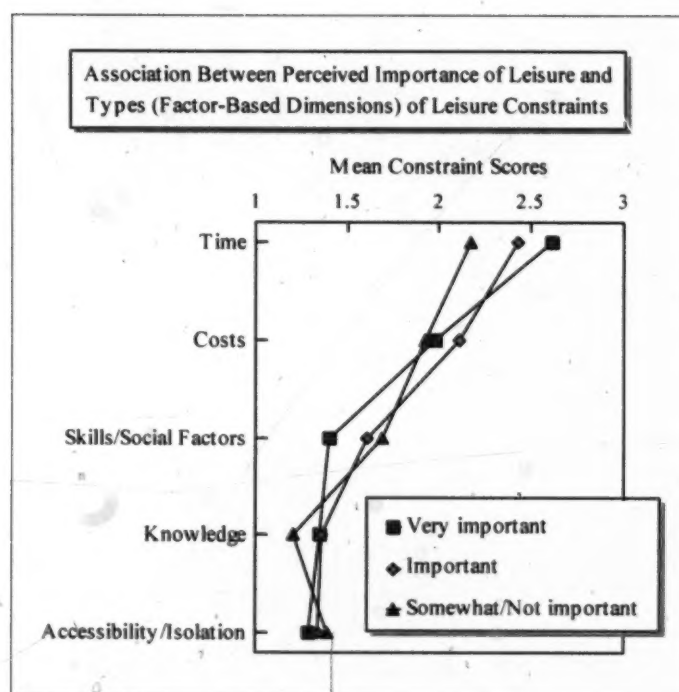
The data assembled in Figures 7.8 and 7.9 elaborate on the specific relationships between leisure constraints and a general value placed on leisure. Although the data presented in Figure 7.8 contain a limited number of statistically significant results, the links revealed peculiar patterns enhancing understanding of the nature and operation of leisure constraints. Constraints that can be classified as intrapersonal, including lacking energy and having doubts about the "appropriateness" of one's age or gender for pursuing some activities ("Wrong" age/sex), and also interpersonal constraints, such as lacking adequate social skills, displayed negative associations with the perceived importance of leisure: the people who scored the highest on these types of constraint considered their leisure to be only "somewhat" or "not at all important." At the same time, the most commonly felt structural constraint, such as being busy with work, showed an inverse association with the perceived value of leisure; people highly constrained in this area were convinced that it was "very important" for them to have some leisure.

The results like these indicate that although the perceived importance of leisure was generally positively linked to the presence of constraints (Table 7.6), the particulars of the association might



Circled items indicate statistically significant results.

Figure 7.8



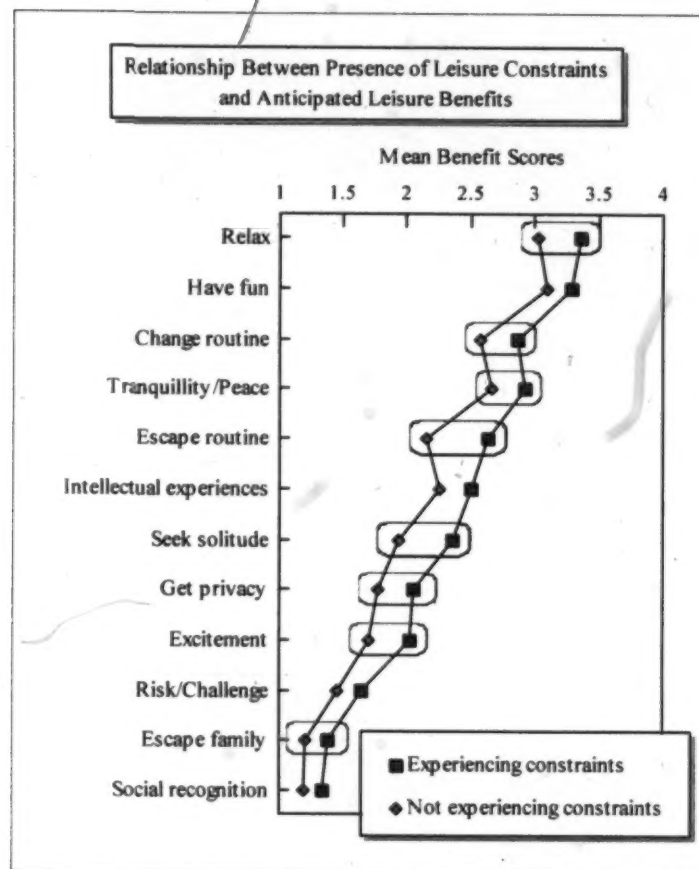
Circled items indicate statistically significant results.

Figure 7.9

vary by the nature of experienced leisure impediments. Data in Figure 7.9, which represents a generalized version of the analyses presented in Figure 7.8, confirm this inference. While the *Skills/Social Factors* dimension (which along with the already mentioned constraints involving being uneasy in social situations and feeling no energy and motivation, included an array of personal factors, such as perceived lack of skills and being physically unfit) had a negative link with the perceived importance of leisure, the *Time* dimension displayed a tendency towards a positive association with the latter.

Leisure constraints and anticipated leisure benefits

The results of one-way analyses of variance involving individual benefit items as the dependent variables (Figure 7.10) confirmed the possibility of a positive association between the presence of constraints and benefit anticipation. Eight out of 38 benefit items (21%) showed some



Circled items indicate statistically significant results.

Figure 7.10

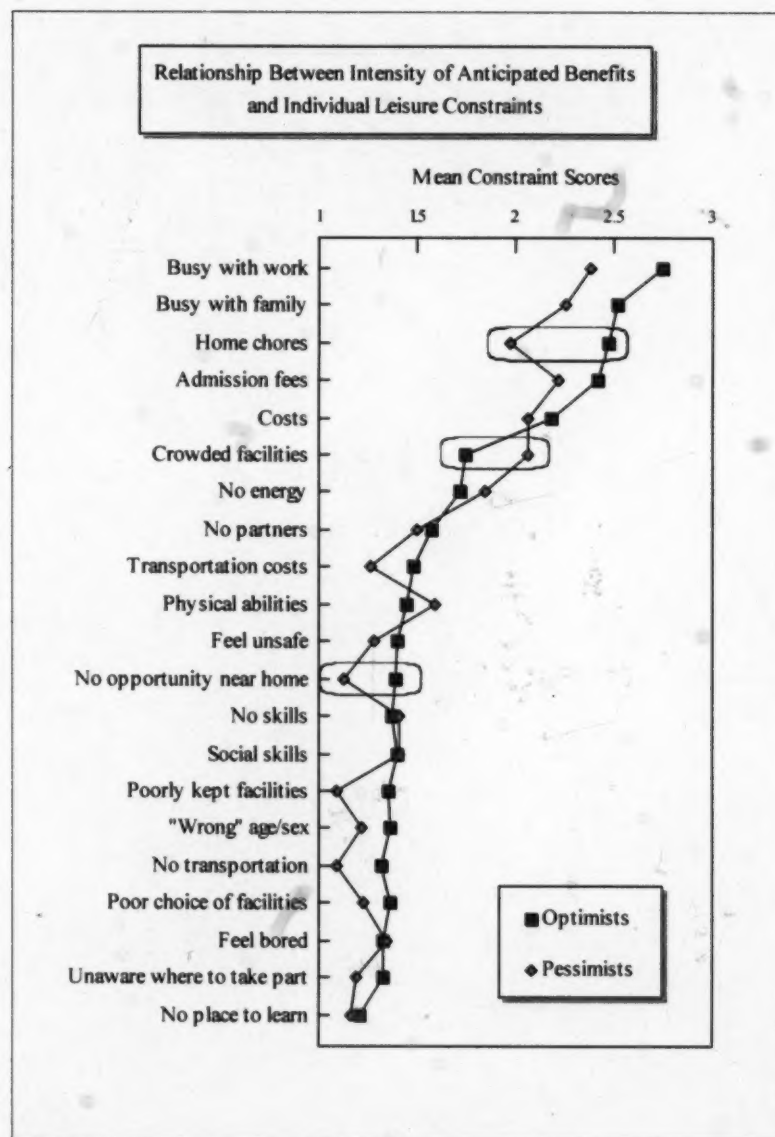
significant positive link with the presence of constraints, while the remaining majority of benefit items had no significant mean score variations. These results provide important evidence that *constraints usually are not negatively associated with the expectations of potential advantages (benefits) of leisure*, and the link between constraints and benefits is mostly “neutral.” The instances in which people who encountered constraints had *higher* appreciation for leisure benefits (had higher mean benefit scores) than absolutely unconstrained individuals, involved getting relaxation and privacy (“Relax,” “Tranquillity/Peace,” “Seek solitude,” “Get privacy”), escaping daily routine and family duties, and getting excitement.

Figure 7.11 depicts an alternative way to look at the relationships between the intensity of anticipated benefits and leisure constraints. Individual constraint items were used in this case as the dependent variables, whereas clusters of people grouped according to the overall intensity of benefit anticipation ("optimists," who displayed strong anticipation of leisure benefits, and "pessimists," who did not attach much importance to the latter) were used as the independent variable. The results exhibited an easily identifiable trend indicating that "optimists" usually scored higher on constraints than "pessimists." However, there was not enough statistical evidence to substantiate this trend for the majority of individual cases. Statistically significant associations involved both positive and negative links between the strength of benefit anticipation and intensity of constraints encountered. While optimists were more constrained than pessimists by home chores as well as by lack of opportunities to participate near home, crowded facilities was a matter of higher concern for pessimists compared to optimists.

To conclude, the statistical evidence suggests the possibility of a mostly positive, albeit quite weak, association between the presence and intensity of constraints and anticipated leisure benefits. The significance and character of the associations may vary depending on both the nature of experienced constraints and anticipated benefits. However, the majority of specific cases involved no significant associations, indicating prevalent "neutrality," or lack of relationships between the variables under question. This conclusion is further corroborated by the results of the generalized analyses, which utilized the dimensions of constraints and benefits instead of specific items (Figure 7.12a,b). The inference that constraints usually do not act as "deterrents" to leisure motivations has a very important theoretical implication. It at least partially explains the lack of negative association between constraints and participation, established in the foregoing section of the chapter, and also people's drive to negotiate through constraints in order to participate (the following chapter provides a more detailed elaboration on this subject).

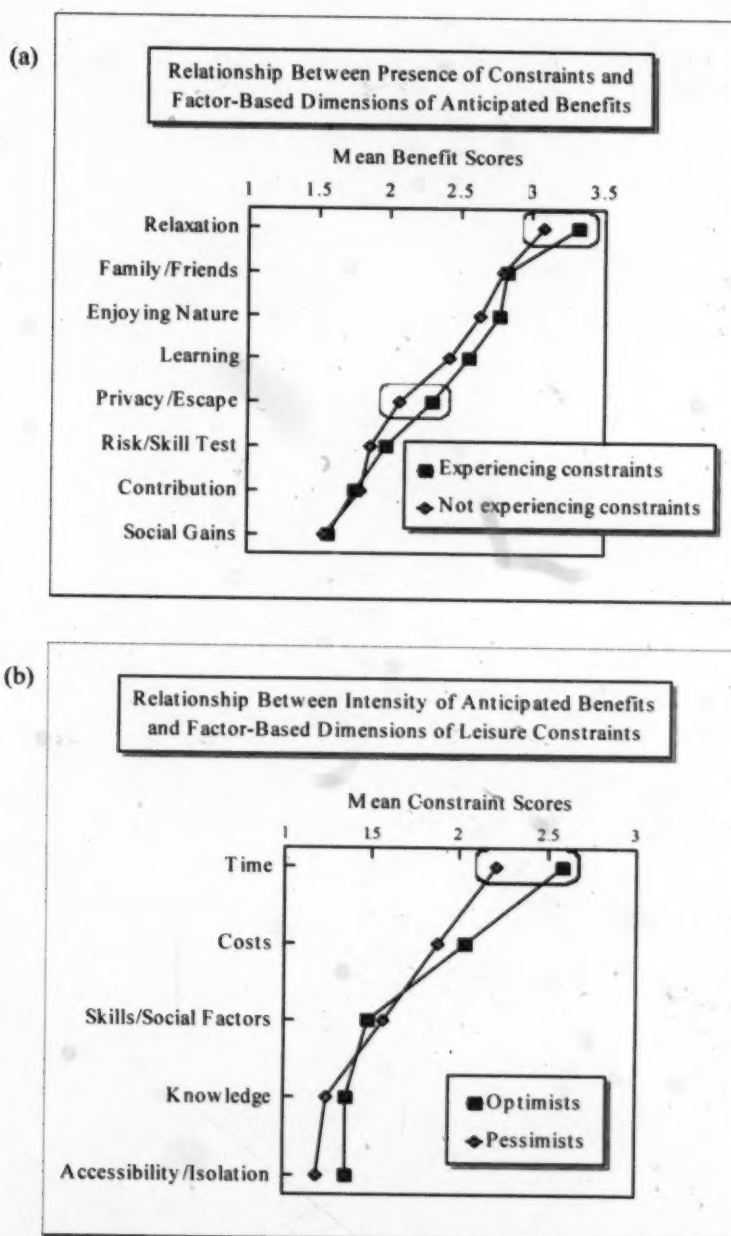
Association between the character of leisure constraints and nature of anticipated benefits

The purpose of statistical results displayed in Figures 7.13 through 7.15 was to look into specific links between different types of anticipated benefits and constraints (Table 7.6 contains a general version of this relationship) in order to gain additional insights into the interaction between these aspects of leisure.



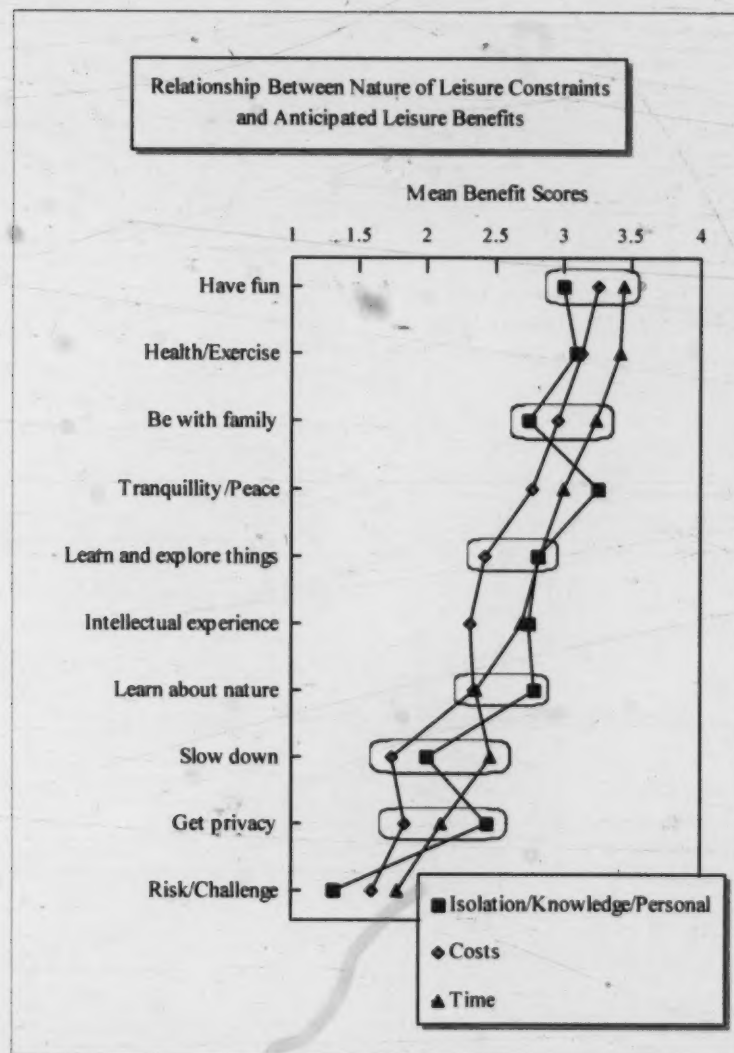
Circled items indicate statistically significant results.

Figure 7.11



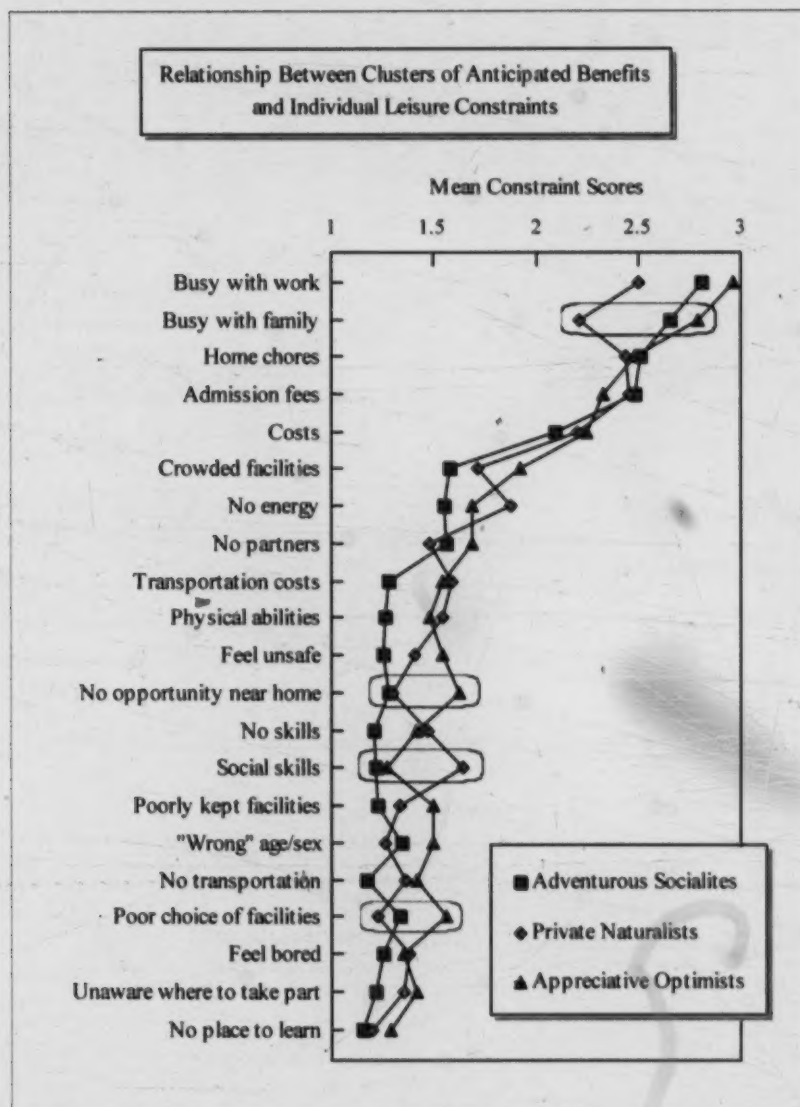
Circled items indicate statistically significant results.

Figure 7.12



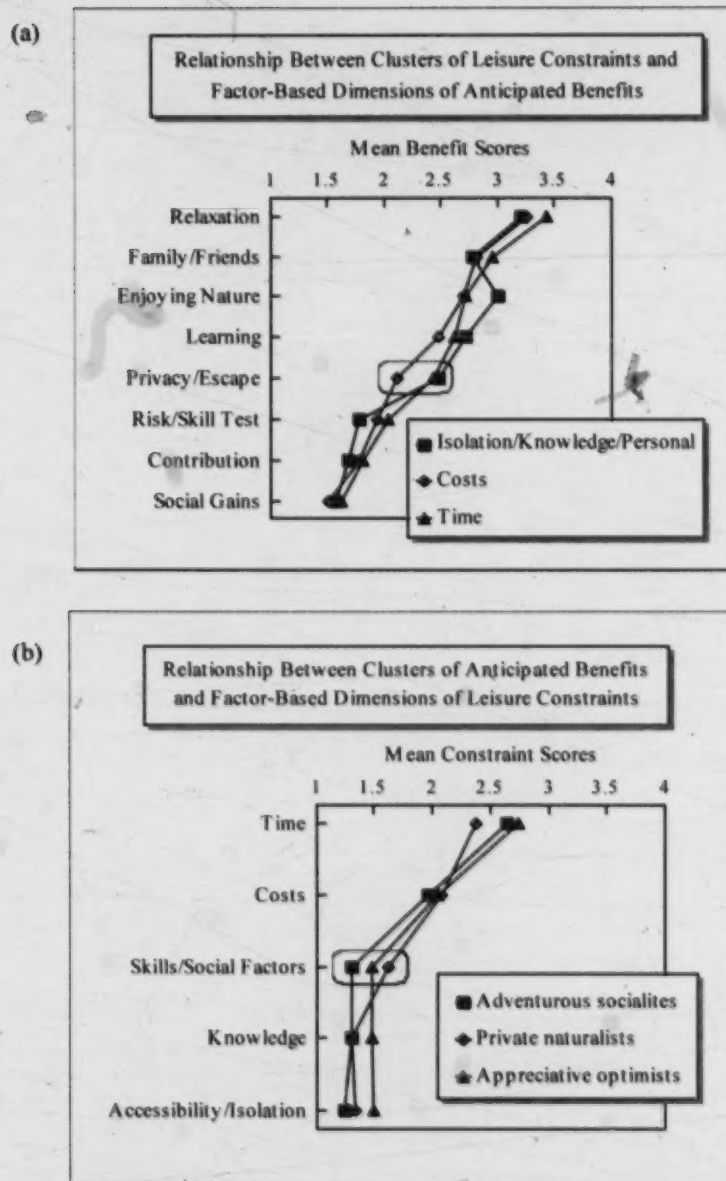
Circled items indicate statistically significant results.

Figure 7.13



Circled items indicate statistically significant results.

Figure 7.14



Circled items indicate statistically significant results.

Figure 7.15

In total, the number of statistically significant associations was not large, indicating that in many cases the types of experienced constraints were not linked to the character of anticipated benefits, and confirming, thereby, the general "neutrality" of the constraints-benefits association established earlier in this chapter. However, some significant relationships emerged pointing to the possibility of distinctive patterns of leisure behaviour.

Congruent with the data shown in Figure 7.12b, time-constrained individuals revealed a somewhat more "optimistic" pattern of leisure expectations, compared to people subjected to other constraints, by scoring mostly first or second highest on the individual benefit items depicted in Figure 7.13. These results are consistent with other earlier reported findings, linking time-related constraints to higher frequencies of activity participation compared to mean participation levels related to other types of leisure inhibitors (Figures 7.6 and 7.7). In the aggregate, these findings make it possible to suggest that some individuals may perceive time-related constraints because they are already actively and enthusiastically pursuing leisure, and have no "time space" left for further "expanding" or intensifying their leisure pursuits. In contrast, costs-affected people showed the lowest intensity of benefit anticipation in the majority of the cases (Figure 7.13), indicating that this type of structural constraint can be more influential than time-induced inhibitors (see also the analyses of links with socio-demographic variables; Table 7.3).

As far as specific constraints-anticipated benefits links are concerned, benefit items such as "Have fun" and "Be with family" showed almost identical constraint-related patterns. These benefits were of prime importance for the respondents constrained mainly by time, followed by costs. Those who felt isolation, lack of knowledge, or personal constraints, expressed relatively low (although still quite high in terms of the overall mean scoring) expectation of the mentioned benefits. Similar mean score spreads were observed for the "Risk/Challenge" and "Slow down" benefit items. Benefit item "Learn and explore things" was equally important for both the *Isolation/Knowledge/Personal Reasons* and *Time* clusters of constrained people and somewhat less vital for costs-inhibited respondents. Learning about nature, getting privacy, and experiencing tranquillity and peace were anticipated with a higher intensity by individuals belonging to the *Isolation/Knowledge/Personal Reasons* cluster of constraints, while being stressed less strongly as potential leisure gains by the time and cost-constrained people.

Figure 7.14 shows variations in specific constraints with respect to three benefit clusters. Two out of three items associated with time commitments showed similar benefit-related variations. Being busy with family and work represented the most substantial leisure obstacles for appreciative

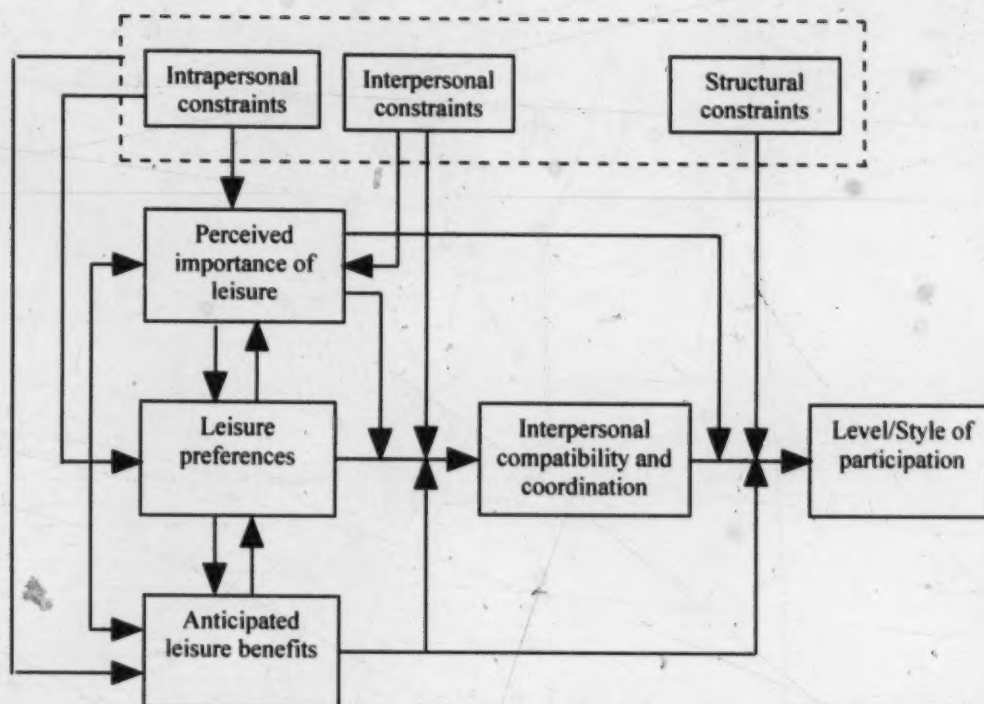
optimists and adventurous socialites, but were less important for private naturalists. Appreciative optimists were also more concerned about the choice and location of facilities (poor choice of facilities and inability to participate in leisure activities close to home) than adventurous socialites and private naturalists. The latter were distinguished by lacking social skills, whereas this matter was less crucial for adherents of other types of anticipated benefits.

Figure 7.15a,b displays the results of generalized analyses of the associations obtained by using factor-based dimensions of constraints and benefits as the dependent variables. Each graph showed only one statistically significant result, and mean score differences were not large. People constrained by isolation, knowledge and personal factors, as well as individuals inhibited primarily by time attached somewhat more importance to the privacy and escape issues, compared to the costs-constrained respondents (Figure 7.5a). Adventurous socialites suffered less from lack of skills or being not social enough for leisure participation than did private naturalists (Figure 7.5b).

To summarize, the data demonstrated that *on some occasions* associations between the types of constraints experienced and character of anticipated benefits occurred and revealed distinctive "behavioural profiles." Further theoretical elaborations on the uncovered associations are presented in the following sub-section, as well as in the Discussion and Conclusions.

Interaction between leisure constraints and motivations: theoretical implications

Looking at the current leisure constraint theory from a different perspective of leisure motivations resulted in new empirical findings and theoretical interpretations, which enhance our understanding of how constraints interfere with leisure choices and shape leisure behaviour. To begin with, the data involving specific constraint items lends support and clarification to Crawford et al.'s (1991) assumption that constraints of intrapersonal nature could be the most powerful, "proximate" leisure inhibitors as they "condition the will to act, or the motivation for participation" (p. 314). The present study indicates that some intrapersonal (lack of energy and perceiving one's age or gender to be "wrong" for pursuing certain activities) as well as interpersonal constraints (lack of social skills) can negatively interfere with the overall conviction about importance of having leisure (or the meaning of leisure) (Figure 7.8). This, in turn, can generate a disappointment with and passive disposition to leisure as a whole and hence, hinder the formation of leisure preferences. Figure 7.16 illustrates this point. "Weakened" preferences, for their part, may result in the lack of the incentive to stand up to constraints at the next (structural) level, and consequently, in reduced or even absent participation. This line of reasoning offers an explanation to the emerged



Interaction between leisure constraints and different aspects of leisure motivation.*

Figure 7.16

*This model is based on findings and propositions of the present study regarding different aspects of leisure constraints-motivations link as well as on theoretical postulates and models by Crawford et al. (1991) and Jackson et al. (1993) on hierarchy of leisure constraints and their "balance" with leisure motivations.

trend for people belonging to the *Isolation/Knowledge/Personal Reasons* cluster (which incorporated a large proportion of those who encountered intrapersonal and interpersonal constraints) to have relatively low participation scores in a number of leisure activities (Figures 7.6 and 7.7). The evidence that not only supposedly the most "proximate" intrapersonal constraints, but also interpersonal constraints (second in the hierarchy of constraints experienced) showed a negative association with the perceived importance of leisure (and therefore, a potential of negative interference with preferences) can be explained by the observation of some leisure researchers that social relationships might be a "driving factor that shapes leisure behavior," and that in many cases the meanings that people draw from leisure "are fundamentally social" (Samdahl & Jekubovich, 1997, p. 450). Therefore, failure to develop social skills and relationships might result in a major "turn-off" in terms of leisure motivations.

At the same time, widely reported structural constraints, such as time commitments showed an inverse, positive, association with the general measures of motivations (the perceived importance of leisure and overall intensity of benefit anticipation). This case provides an example of what can happen if intrapersonal or interpersonal constraints are absent or successfully surmounted. An "enhanced" general drive for having leisure may stimulate developing leisure preferences, anticipation of potential benefits and, finally, the desire to go on with participation despite time shortages. This inference is substantiated by the data on the links between constraints and participation (Figures 7.6 and 7.7), with time-inhibited individuals displaying high mean participation levels. (See also the results on the interaction between perceived importance of leisure and anticipated benefits discussed in Chapter 5, Table 5.3). An additional interpretation of the positive association of time-related constraints with both leisure motivations and participation was provided in the previous sub-section. It was hypothesized that time-associated constraints may be experienced by very active and inspired individuals, who may be already actively engaged in leisure, but might be willing to do even more. (In this case current leisure pursuits might interfere, along with work or home chores, with the desire to do additional participation). This explanation is consistent with Shaw et al.'s (1991) interpretation of the positive association between reporting "lack of time" and actual participation rates.

The data also demonstrate that it is important to differentiate among *the types of leisure motivations* in order to grasp the particulars of the operation of leisure constraints. While a general value placed on leisure exhibited negative associations with some intrapersonal and interpersonal constraints, anticipated benefits showed a predominantly "neutral" or even positive link to

experiencing constraints. These results may indicate that as soon as a general drive for leisure and leisure preferences "survive the trial" by constraints at the intrapersonal or interpersonal levels (or if these inhibitors are absent), constraints may stop acting as potential deterrents to leisure motivations, such as anticipated benefits. Quite the reverse, the data sometimes show positive associations, including the cases involving time commitments (Figures 7.13-7.15), indicating that anticipation of potential leisure gains might even intensify in the process of confronting constraints, and so may the desire to participate "despite constraint" (Kay & Jackson, 1991) by taking an "active stance" toward leisure inhibitors (i.e., proceeding with constraints negotiation).

To sum up, there was evidence in the data suggesting that formation of leisure motivations in the process of interaction with different leisure impediments, may also display a sequential order, or a "hierarchy of importance" (Figure 7.16). Developing a general aptitude for leisure (perceived importance of leisure) is accompanied by the formation of preferences. As a result, a variety of leisure benefits is anticipated. The first stage of the process is probably the most crucial and "vulnerable" for motivations, as negative influence of some constraints at this point might result in a "turn-off" and weakening and narrowing of the range of preferences, or even in unwillingness to participate at all. This point is substantiated by the general data in Table 7.6: while the magnitude of anticipated benefits showed no variation by the intensity of experienced constraints, perceived value of leisure indicated some negative association with this variable.

Discussion and Conclusions

The role of constraints in leisure experience (general patterns)

The survey results confirmed that constrained leisure is a very widespread phenomenon: almost 70% of the sample encountered some kind of leisure inhibitors. Similarly to the previously reported findings, time and costs-related constraints were the most frequently mentioned ones (Jackson, 1993; Searle & Jackson, 1985; and Shaw et al., 1991). The data indicated that the major aspects of constrained leisure were related mainly to various participation issues, such as inability to participate as often as preferred or to proceed with past leisure engagements. However, only 4% of constrained individuals mentioned lack of enjoyment resulting from participation as a result of encountering constraints.

The major aspects of constrained leisure did not show a strong connection with the overall intensity of constraints. As to their links with the types of constraints, escalation of time-related inhibitors showed a positive association with the inability to participate as frequently as desired,

whereas ceasing participation in previous activities showed some connection to a different type of constraints involving lack of skills and uneasiness in socializing.

Social variations in leisure constraints encountered: theoretical outcomes

The importance of the analyses of socio-demographic variations in constraints goes far beyond establishing credibility of the data, reported in the beginning of the chapter. The emerged associations have theoretical implications by empirically supporting Crawford et al.'s (1991) proposition about "a hierarchy of social privilege," which complements and extends the earlier discussed conceptualization of constraints as encountered sequentially or in a hierarchical order. The proposition postulates that more socially privileged people "are subject to fewer or weaker intrapersonal and interpersonal constraints on participation than are their less privileged counterparts" (p. 315). Indeed, the factors and clusters of constraints carrying substantial intrapersonal and interpersonal "component" (e.g., the dimensions such as *Accessibility/Isolation* and *Skills/Social Factors*, or the cluster *Isolation/Knowledge/Personal Reasons*) were positively associated with belonging to the lower income groups (Table 7.3). At the same time, reporting the effects of some structural (time-related) constraints was higher among the wealthier respondents, compared to those with low income. This tendency could be interpreted as evidence of the absence or weakness of the most powerful, intrapersonal and interpersonal constraints, at the upper levels of "social stratification." The results support the conviction shared by some leisure researchers about importance of paying attention to social structure in order to better understand constraints on leisure and their effects (Crawford et al, 1991; Shaw et al., 1991). The "hierarchical model" of constraints makes it possible to put such research into a dynamic perspective.

Interaction between leisure constraints and participation

The data indicated that in general, constrained leisure (experiencing constraints and their relative intensity) was not negatively associated with participation. While there was evidence that lower proportions of constrained or intensely constrained individuals did what they wanted for leisure "always or most of the time," compared to unconstrained or weakly constrained people, there was no indication that constraints usually negatively interfered with leisure in terms of frequency of participation. These findings validated the results of preceding studies (Kay & Jackson, 1991; Shaw et al., 1991), which came to a similar conclusion that there was not necessarily an inverse relationship between constraints and participation. However, in some cases

leisure constraints were associated with either increased or reduced participation. Firstly, these results lend further support to the earlier observations that constrained leisure does not necessarily mean "negative impact" on participation, suggesting a trend to participate "despite constraint" (Kay & Jackson, 1991), or, in other words, attempt negotiation. Secondly, they suggest that different types of constraints might have different potential leisure effects.

Statistical results implied that there was not necessarily a direct and straightforward link between the frequency and intensity of constraints encountered and their effects on leisure. On the contrary, generally less frequently reported constraints, such as geographical and personal isolation in association with feeling bored, insecure and disenchanted (the *Accessibility/Isolation* dimension), lack of knowledge (*Knowledge*), social or other and skills (*Skills/Social Factors*), were associated with lower activity participation levels, compared to such widely experienced leisure inhibitors as lack of time. Looking at the associations from a different, "participation-nonparticipation," reveals similar trends. As noted above, while time-induced constraints showed association with a general aspect of constrained leisure, such as being unable to participate as often as desired, constraints involving lack of skills and uneasiness in social situations were positively linked with discontinuing participation altogether (ceasing taking part in past activities). These results supported Crawford et al.'s (1991) and Jackson et al.'s (1993) "hierarchical" conceptualization of constraints by confirming that intrapersonal and interpersonal constraints should act as more "proximate" and powerful leisure inhibitors than structural leisure inhibitors.

Interaction between leisure constraints and motivations

It has been empirically demonstrated that in general, the presence of leisure constraints showed no negative associations with leisure motivations, including anticipated leisure benefits and the perceived importance of leisure (Table 7.6). Moreover, on a general level and on some individual occasions, the link between constraints and different types of motivation was positive, suggesting thereby, that facing leisure constraints not only does not necessarily suppresses motivation to participate, but, on the contrary, can be associated with more intensive anticipation of leisure benefits and a higher general value placed on leisure. This basic finding has an important theoretical implication, as it offers an empirically substantiated explanation of the results of the analyses of relationships between constraints and participation emerged in the previous and current research, by answering the questions: *Why* the association between constraints and participation is not necessarily a negative one? and *Why* do people negotiate through leisure constraints?

As a result, the following "extended" proposition can be put forward: Encountering leisure constraints does not necessarily negatively interfere with participation, because motivations for such participation are not necessarily subdued as a result of constraints (and even can be positively linked to the latter). Since motivation for participation is not lost, people may adopt different strategies to negotiate through constraints, in order to go on with participation (this explains the "unchanged" frequencies of the latter).

The results of the analyses at a high level of specificity permit further elaboration on this general inference. The data suggest that the development of leisure motivations and their interaction with leisure constraints might also follow a sequential or hierarchical pattern similar to the hierarchical sequence of encountering leisure constraints described by Crawford et al. (1991) and Jackson et al. (1993). The data demonstrate that enduring leisure inhibitors on the intrapersonal and interpersonal levels may negatively interfere with the perceived importance of leisure and, hence, deter people from forming preferences for participation (Figure 7.16). However, once these initial "stages" of constraints are surmounted or absent and leisure preferences are formed, resulting in anticipation of some leisure benefits, the latter type of leisure motivation does not show susceptibility to the negative effect of constraints. These results provide a reasonable explanation of why constraints usually do not negatively interfere with leisure participation.

Furthermore, other interesting patterns emerged from data analyses that cast new light on theoretical interpretation of experience and behaviour associated with constrained leisure (Figures 7.13 through 7.15a,b). The data demonstrated that leisure constraints may interfere with anticipated benefits in a more subtle way than simply reducing their intensity, namely, by affecting (supposedly through influencing leisure preferences) their *character* (Figure 7.16). For example, expecting privacy-related leisure benefits was found to be associated with constraints related to experiencing isolation, lacking knowledge, and restrictions of personal character. Also, lacking social skills was more typical of the cluster of "private naturalists," than to other clusters of anticipated benefits. These findings allow us to assume that perception of leisure constraints may modify the character of anticipated leisure benefits. For instance, people may become "private naturalists" and consequently prefer "non-social" participation (activities such as gardening, nature walks and study, hiking, and bird watching; Chapter 5, Figure 5.9), because they experience lack of social skills and therefore do not expect rewards associated with social leisure.

The described associations provide an example of the ways in which leisure expectations and participation can be "modified" as a result of experiencing constraints. However, this modification is somewhat different from constraints negotiation (Crawford et al., 1991; Jackson et al., 1993). The term "negotiation" implies confronting constraints and working consciously on surmounting of constraints. The study casts new light on the existing interpretation of leisure constraints operation by demonstrating that there might be other, not exactly "negotiation" ways of coping with constraints, when people still may participate in leisure "despite constraints," but rather by (consciously or subconsciously) "getting around" or "avoiding" them than actively negotiating through them.

Finally, it is important to mention that not only the most powerful, intrapersonal and interpersonal, constraints may modify leisure benefit anticipation, but also structural constraints. For example, Figure 7.13 shows that expecting leisure benefit such as slowing down was understandably associated with experiencing time-related hindrances.

The foregoing ideas may now be formally summarized in the following propositions:

- (1) The formation of leisure motivations and their interaction with leisure constraints may exhibit a hierarchical pattern. The overall aptitude for leisure (its perceived importance) and leisure preferences might be affected and modified by (intrapersonal or interpersonal) constraints prior to anticipation of specific leisure benefits.
- (2) Leisure benefits are not normally negatively affected by constraints (in terms of their overall strength), but their character and hence, the character of subsequent leisure participation, may be affected and modified as a result of perception of constraints.
- (3) It is possible that all types of constraints (including intrapersonal, interpersonal and structural leisure inhibitors) may influence leisure preferences and anticipated benefits.
- (4) Besides "direct" constraints negotiation, coping with leisure inhibitors may involve more "passive" ways of "getting around" or "avoiding" them (consciously or subconsciously) by modifying leisure preferences and anticipated benefits of leisure.

By demonstrating in what *specific* ways leisure constraints may interact with different types of leisure motivations examples) this study adds new developments to the current theory of leisure constraints and their negotiation, including their "balance" interpretation (Crawford et al., 1991; Jackson et al., 1993). The following complementary comments can be added to the conclusions drawn from the data on leisure motivations. First, it is important to distinguish between different *types* of motivations in order to better understand their specific role in the process of leisure

constraints operation. Therefore, identification, measurement, and *simultaneous* investigation of different manifestations of leisure motivation, similarly to the distinct levels of constraints, is worth looking at in future research. Second, the outlined hierarchy of leisure motivations should be interpreted as a "flexible" construction, with a possibility of feedback loops and retroactive links. For example, intensive anticipation of potential leisure benefits can positively affect general value placed on leisure (Figure 7.16).

CHAPTER 8

CONSTRAINTS NEGOTIATION PROCESS

Objectives of the Chapter

According to Jackson and Rucks (1995), "understanding of the process of leisure constraints negotiation is still in its formative stages" (p. 86). The *general objective* of this chapter is to contribute to the development of a composite picture of the constraints negotiation *process*, thereby enhancing a fuller, empirically-based understanding of leisure decision-making mechanisms and leisure choices and styles. This goal is attained by investigating areas and links which remain underexplored. "Gaps" are filled by introducing new variables into the analysis, including those related to leisure motivation and satisfaction, development of enriched sets of negotiation and constraints categories, and exploring possible links in the constraints negotiation process, which have not been tested previously. The data analysis largely evolves around the dichotomy of "negotiators" and "non-negotiators," which allows constant juxtaposition of these contrasting behavioural reactions to constraints and the resulting leisure outcomes.

The *specific objectives* of the chapter are two-fold. First, they are aimed at empirical reconfirmation of an earlier stated basic proposition that constraints are not necessarily experienced as insurmountable obstacles to leisure, but, on the contrary, tend to be negotiated through by some individuals (Henderson et al., 1993; Jackson et al., 1993; Jackson & Rucks, 1995; Samdahl & Jekubovich, 1993). Second, research identifies relationships among the "negotiation" variables, focussing on the following questions: (1) How is the *negotiation process* (initiation and perceived success of negotiation together with adopted negotiation strategies) associated with the intensity and character of experienced leisure constraints? (2) *Why* do people negotiate leisure constraints, and how is the process of negotiation affected by the strength of leisure motivation and the nature of anticipated benefits? (3) What is the impact of attempts at and success in negotiation on the frequency of leisure participation, and how is the nature of participation related to negotiation process? (4) How do negotiation potential (impetus to negotiate constraints and resulting degree of success) and negotiation patterns vary depending on socio-demographic characteristics (age, gender and income)?

Basic Patterns Within the Data

Leisure constraints and negotiation potential

The data clearly indicate that constraints are not always perceived as insurmountable obstacles to leisure. On the contrary, there was a strong trend towards their negotiation in the sample.

Among the 296 sample members 203 individuals (68.6%) reported experiencing some sort of leisure constraints. The vast majority of these constrained people (170 respondents or 83.7%) took an active stance and tried to overcome the constraints.

Respondents put a high value on their leisure: for 52.6% of them, having a certain amount of leisure time was "very important," while for 35.1% it was "important," for a combined total of 87.7%. Only 11.9% described leisure as "somewhat important," and only one respondent checked "not at all important." Nevertheless, only slightly more than a half of them felt confident that they got to do what they wanted in their free time, with 50% being able to engage in desirable leisure pursuits "most of the time" and only 5.8% feeling that they did it "always." A further 42.5% replied "some of the time," and 1.7% of respondents said they "never" did what they wanted for leisure.

The basic data on negotiation outcomes follows the pattern described above. While only 4% of "negotiators" who answered the question about perceived success in negotiation, reported themselves as "not at all successful," and only 1% or 2 people reported themselves as "totally successful," the majority of them reported varied degrees of success in challenging impediments to their leisure, ranging from "somewhat successful" (96 respondents or 57.1%) to "mostly successful" (63 people or 37.5%).

These preliminary results on negotiation outcomes support the assumption about a complex character of the negotiation process. Possible involvement of a variety of interrelated factors in the negotiation mechanism and the fact that "negotiated" leisure may differ from the one taking place in the absence of constraints (Jackson et al., 1993), can explain prevalence of less definite, "intermediate" statements about success or failure in negotiation among the respondents.

Individual negotiation strategies

All of the 40 listed negotiation items were checked by the respondents who negotiated constraints to their leisure (Table 8.1), varying from a high of 72% of negotiators in the case of planning ahead for things, to a low of 2% in the case of moving to a better location. This indicates

Table 8.1
Frequency Data for the Negotiation Items

Negotiation Items	Number of individuals	% of Negotiators	% of Constrained Individuals	% of the Sample
2. I try to plan ahead for things	122	71.7	60.1	41.2
1. I try to better organize my time	109	64.1	53.7	36.8
3. I set aside specific time for recreation and leisure...	108	63.5	53.2	36.5
22. Sometimes I make my free time and favourite activities a priority	94	55.3	46.3	31.8
5. I have some equipment at home	93	54.7	45.8	31.4
13. I try to just stay flexible and adaptable	92	54.1	45.3	31.1
23. I try to motivate myself (to convince myself that recreation participation can be beneficial for me)	87	51.2	42.9	29.4
39. I try to be positive and have fun no matter what amount of free time or types of activities are available	85	50.0	41.9	28.7
9. I do more things close to home	83	48.8	40.9	28.0
8. I try to motivate my family members to participate with me	76	44.7	37.4	25.7
18. I try to budget my money better	72	42.4	35.5	24.3
28. I try to train and improve my physical abilities and/or skills	66	38.8	32.5	22.3
6. I try to get friends interested in my favourite recreation activities to participate together	63	37.1	31.0	21.3
24. I try to participate only in recreation activities that are very interesting to me	60	35.3	29.6	20.3
7. I try to find companions specially for certain recreation pursuits	56	32.9	27.6	18.9
21. During the time that I work, I work hard so that I can have more free time	56	32.9	27.6	18.9
35. I'd rather cut back the frequency of my participation than stop doing a recreation activity that I enjoy	56	32.9	27.6	18.9
32. I save money to do certain things	55	32.4	27.1	18.6
36. I try to use <i>any</i> free time available... to participate in my favourite activity	54	31.8	26.6	18.2
17. I try to teach my children to be more responsible and help with things	52	30.6	25.6	17.6

Table 8.1 (Continued)

Negotiation Items	Number of Individuals	% of All Negotiators	% Constrained Individuals	% of the Sample
4. I try to schedule my participation at a time when facilities are less crowded	47	27.6	23.2	15.9
29. I have cut back on intensity of my participation and simply do what I am physically able to do	46	27.1	22.7	15.5
40. I try to become more assured and pursue my favourite recreation activities despite what others might think	46	27.1	22.7	15.5
37. If obstacles of participating in a preferred activity... seem to be too challenging, I (sometimes) substitute another activity for a preferred one	45	26.5	22.2	15.2
16. I ask my spouse to share the daily chores	44	25.9	21.7	14.9
27. I try to learn new activities	43	25.3	21.2	14.5
14. I take turns with my spouse taking care of the kids ...	41	24.1	20.2	13.9
25. I try to socialize more	39	22.9	19.2	13.2
34. I have just learned to live within my means	37	21.8	18.2	12.5
38. I have learned to participate despite injury or physical/health condition	33	19.4	16.3	11.1
15. I/we utilize a babysitter sometimes to make free time	30	17.6	14.8	10.1
26. I try to become more relaxed and assured in socializing with others	30	17.6	14.8	10.1
30. I try to find better (less busy, cheaper, etc.) recreation facilities	28	16.5	13.8	9.5
31. I try to find recreation pursuits and facilities which seem to be safer...	28	16.5	13.8	9.5
11. I use the bus	18	10.6	8.9	6.1
19. I am trying to get/have got additional job to earn more	18	10.6	8.9	6.1
20. I am trying to get/have got a better (higher paid) job	17	10.0	8.4	5.7
10. I arrange rides with friends	15	8.8	7.4	5.1
33. I borrow money to do things	13	7.6	6.4	4.4
12. I actually moved (or I am planning to move) to a better location	4	2.4	2.0	1.4
Total	170	100	83.7	57.4

that the range of ways to adopt to or alleviate leisure constraints can be very diverse, and each person might have his/her own unique tactic (a set of negotiation strategies) of handling the problem. Among the ten most frequently mentioned individual strategies, time-related adjustments prevailed. Planning ahead (71.7% of "negotiators") was followed by better organizing time, setting a specific time for leisure and making free time a priority (64.1%, 63.5%, and 55.3% respectively). Relocating some activities closer to home (having equipment at home and doing things close to home) and adjustments of a cognitive rather than a behavioural character (stay flexible and adaptable, motivating oneself, and be positive and have fun) yielded frequencies ranging from 48.8% to 54.7% of negotiators, followed by interpersonal adjustments, such as trying to motivate family members to participate in leisure activities (44.7%). Among the least frequently adopted strategies were: "I use the bus," "I am trying to get/got additional job to earn more" (both accounting for 10.6% of negotiators), "I arrange rides with friends" (8.8%), "I borrow money to do things" (7.6%), and "I actually moved (or I am planning to move) to a better location" (2.4%).

Factor-based dimensions of negotiation strategies

Taking into account that, unlike the majority of other leisure-related variables, consideration of negotiation strategies is confined solely to the current chapter, the decision was made to discuss the results of data reduction (factor analysis of negotiation strategies) in this section of the thesis rather than earlier. The factor-based dimensions of negotiation strategies were gained from forcing a 6 factor solution on the negotiation items. (The principles for the selection of an optimal factor solution were similar to the ones described in the foregoing chapter concentrating specifically on the data reduction and classification). Having eigenvalues greater than 1.5, the chosen factor solution had a cumulative percentage of explained variance exceeding 43%. Cronbach's alpha coefficients for the factors ranged from 0.53 to 0.75. In the course of analysis six negotiation items were removed due to the factor loadings falling below 0.40, including "I try to plan ahead for things," "I have some equipment at home," "I try to get friends interested in my favourite recreation activities to participate together," "I try to find companions specially for certain recreation pursuits," "I actually moved (or I am planning to move) to a better location," and "I try to motivate myself"

The factors were named according to the underlying concepts (Table 8.2). Some of the emerged factor-based dimensions were "straightforward," and "type-oriented," focusing on a single specialized theme. They included *Developing family strategies*, which embraced a set of measures

Table 8.2
Factor-Based Dimensions of Negotiation Strategies

Dimensions	Factor Loadings	Corresponding Items
Flexibility/ Dedication	0.64	Sometimes I make my free time and favourite activities a priority
	0.61	I try to be positive and have fun no matter what ...
	0.59	I try to use any free time available ... to participate in my favourite activity
	0.53	I try to train and improve my physical abilities and/or skills
	0.50	I set aside a specific time for recreation and leisure ...
	0.49	During the time that I work, I work hard so that I can have more free time
	0.48	I try to become more assured and pursue...favourite activities despite what others may think
	0.44	... I (sometimes) substitute another activity for a preferred one
	0.42	I try to better organize my time
	0.41	I try to just stay flexible and adaptable
Developing family strategies	0.76	I/we utilize a babysitter ... to make free time
	0.72	I take turns with my spouse taking care of the kids...
	0.66	I try to teach my children to be more responsible and help with things
	0.65	I ask my spouse to share daily chores
Adjusting to externalities	0.79	I use bus
	0.64	I arrange rides with friends
	0.61	I try to find better (less busy, cheaper) recreation facilities
	0.52	I have just learned to live within my means
Taking it easy	0.69	I try to become more relaxed and assured in socializing with others
	0.59	I try to socialize more
	0.49	I have cut back on intensity of my participation and...do what I am....able to do
	0.45	I have learned to participate despite injury or physical/health condition
	0.44	I try to learn new activities
Modifying finances	0.59	I am trying to get/have got a better (higher paid) job
	0.58	I am trying to get/have got additional job to earn more
	0.57	I borrow money to do things
	0.56	I try to budget my money better
	0.47	I save money to do certain things
Utilizing alternative resources and modifying participation	0.59	I try to schedule my participation ... when facilities are less crowded
	0.55	I'd rather cut back the frequency of...participation than stop doing an ... activity...
	0.52	I try to participate only in... activities that are very interesting to me
	0.48	I do more things close to home
	0.46	I try to motivate my family members to participate with me
	0.41	I try to find recreation pursuits and facilities which seem to be safer ...

aimed at making some leisure time by re-delegating family responsibilities (utilizing a babysitter, taking turns with the spouse taking care of kids, asking the spouse to share daily chores, and teaching children to help with things) and *Modifying finances*, comprised of the strategies representing various financial adjustments in order to meet participation expenses. The majority of the dimensions, however, reflected more complex concepts of the negotiation process, offering new insights into the decision-making entailing from constrained leisure. For example, the first dimension, entitled *Flexibility/Dedication*, contains a broad variety of negotiation strategies. Taken together, however, they reveal a notion of dedication and commitment to leisure, resulting in a flexible, creative approach to tackling constraints, which involves trying different strategies in order to meet leisure goals. These strategies included concentrating on several "areas of improvement," such as making time adjustments ("Sometimes I make my free time and favourite activities a priority," "I try to use any free time available...to participate in my favourite activity," "I try to better organize my time," etc.), trying to develop a positive and flexible life attitude ("I try to be positive and have fun no matter what...", "I try to become more assured and pursue...favourite activities despite what others may think," and "I try to just stay flexible and adaptable"), attempting to become more physically fit and skilful, and, if necessary, switching to other leisure activities. Such a diversified approach to negotiation revealed in a factor-based dimension, is justified, taking into consideration that there is a possibility of people facing an array of different leisure constraints.

Likewise, the *Adjusting to externalities* dimension is underlied by an idea of adaptation to unfavourable external circumstances, which can negatively interfere with leisure involvements, such as lack of transportation, or expensive and crowded facilities. Among the relevant strategies were both behavioural ("I use bus," "I arrange rides with friends," "I try to find better (less busy, cheaper) recreation facilities") and cognitive adjustments ("I have just learned to live within my means"). An array of behavioural and cognitive tactics, directed towards adopting a relaxed approach to leisure ("I try to become more relaxed and assured in socializing with others," "I have cut back on intensity of my participation and...do what I am...able to do") coupled with the attempts to introduce positive changes into leisure involvements ("I try to socialize more," "I try to learn new activities"), was also characteristic to the *Take it easy* negotiation dimension.

The strategies composing the last dimension (*Utilizing alternative resources and modifying participation*) evolved around introducing various changes in activities and finding alternative ways of leisure involvement in order to continue participation ("I try to schedule my participation at a time when facilities are less crowded," "I'd rather cut back the frequency of ...participation than

stop doing an...activity..., "I do more things close to home," etc.).

Frequencies for the negotiation dimensions were calculated by creating binary variables for each dimension, which reflected adoption or non-adoption of corresponding types of strategies. They showed that the strategies of the *Flexibility/Dedication* type were the most "popular" ones, being utilized by almost all of the "negotiators" (95.3%), followed by the dimension *Utilizing alternative resources and modifying participation* (83.5%). The lowest scoring dimension was *Adjusting to externalities* (34.1%), and those dimensions in the middle were *Taking it easy* (56.5%), *Modifying finances* (52.9%), and *Developing family strategies* (50%).

Negotiation Potential: Prerequisites and Outcomes

Experiencing leisure constraints and negotiation

Statistical evidence suggests no significant relationship between the overall intensity of constraints experienced and initiation of their negotiation (Table 8.3). However, there were statistically significant negative links between the perceived intensity of constraints and the outcomes of the negotiation process. The perceived degree of success in constraints negotiation was inversely related to their intensity: constrained individuals were less successful in constraints negotiation (only 33.1% of them were categorized as mostly or totally successful) than were relatively unconstrained respondents (54.5%). Consistently with this evidence, the frequency of involvement in desirable leisure also showed a negative association with the intensity of constraints. Significantly lower percentage of the constrained cluster members were able to do what they wanted for leisure "most of the time" or "always" (30.7%) than weakly constrained (relatively unconstrained) individuals (54.4%). Only 45.6% of the latter group declared inability to be involved in desirable leisure most of the time in comparison to 63% of constrained individuals.

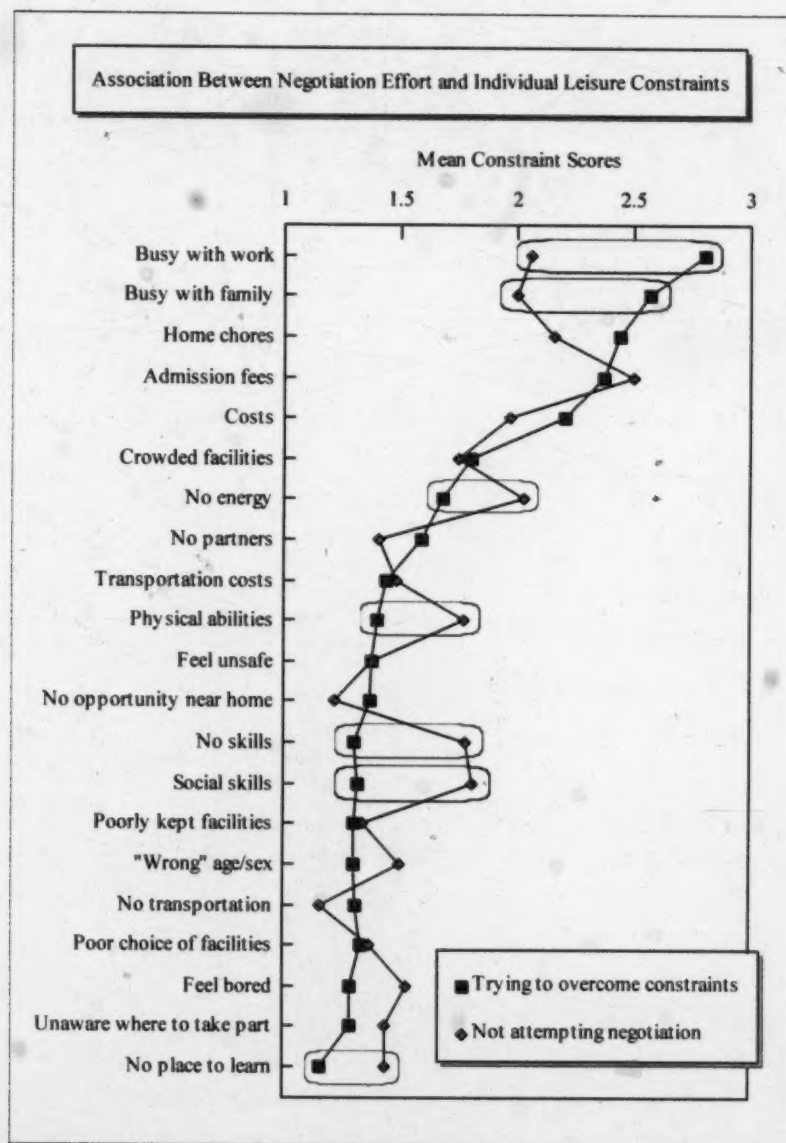
Figures 8.1 through 8.3 contain plotted results of analyses of variance exploring associations between negotiation variables and specific leisure constraints, presented either as individual items (Figures 8.1 and 8.2) or generalized into factor-based dimensions (Figure 8.3). The data in the figures complement the previous account of the general associations between intensity of leisure constraints and negotiation variables, by revealing that these relationships varied depending on the specific constraints or their type. For example, in case of time-related constraints, such as being busy with work, family, or home chores, respondents who perceived such constraints relatively strongly were engaged actively in negotiation (Figure 8.1). In contrast, intrapersonal or interpersonal constraints, such as lack of energy, physical abilities, and social or other skills,

Table 8.3
Variations in Initiation and Outcomes of Constraints Negotiation by Overall Intensity of Constraints

	Clusters of Constraints		
	Constrained Individuals %	Relatively Unconstrained %	
<i>Initiation of Negotiation Process</i>			
Attempting negotiation	85.6	80.7	Chi-square = 0.75; d.f. = 1; n.s.
Not attempting negotiation	14.4	19.3	
Totals (n)	(146)	(57)	
<i>Perceived Success in Negotiation</i>			
Mostly / Totally successful	33.1	54.5	Chi-square = 6.32 d.f. = 1; p = 0.012
Somewhat / Not at all	66.9	45.5	
Totals (n)	(124)	(44)	
<i>Frequency of Involvement in Desirable Leisure Pursuits</i>			
Most of the time / Always	30.7	54.4	Chi-square = 5.10 d.f. = 1; p = 0.024
Some of the time / Never	63.0	45.6	
Totals (n)	(146)	(57)	

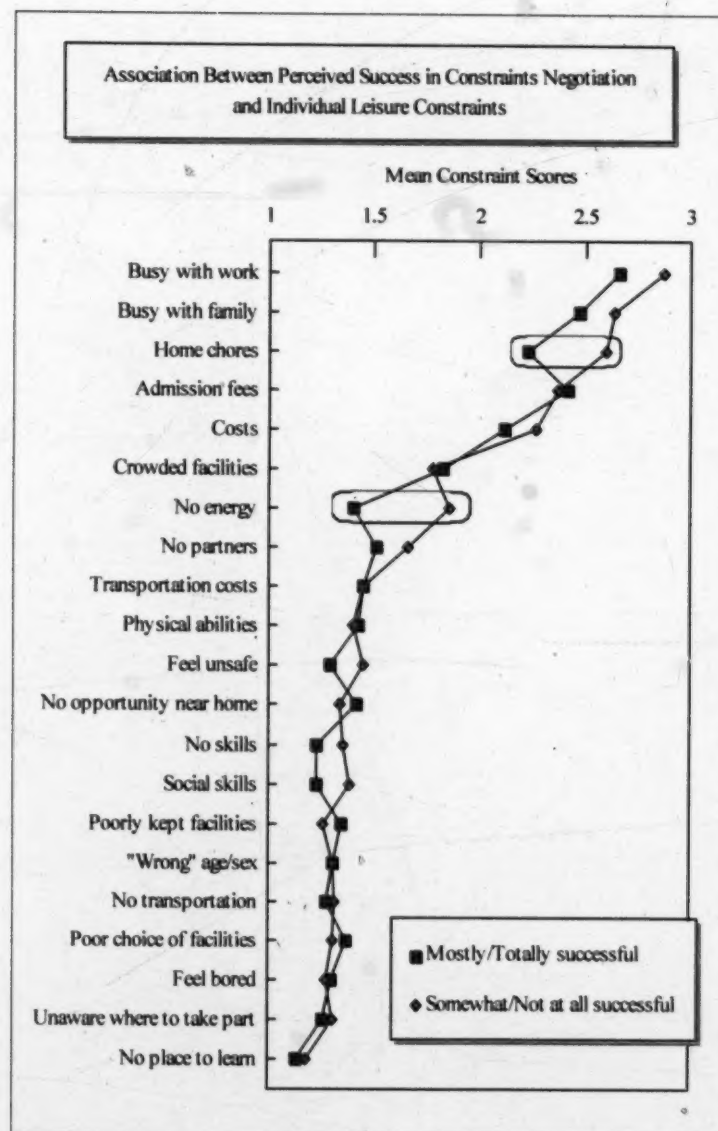
as well as boredom and unawareness of opportunities or places to learn, were negatively correlated with the negotiation drive. These results confirm Crawford et al.'s (1991) conception of these constraints as the most powerful leisure impediments (see also Chapter 7 on leisure constraints). The data demonstrate that while the degree of success in constraints negotiation did not vary much by the type of constraint among "attempters" who initiated negotiation process (Figure 8.2), experiencing intrapersonal or interpersonal leisure impediments might result in unwillingness or inability for some individuals to even attempt negotiation (Figure 8.1).

Figure 8.3 presents more generalized analyses of the associations between negotiation variables and factor-based dimensions of constraints. The time-related group of constraints showed a strong positive association with the negotiation effort (Figure 8.3a). At the same time, the relationship with the variables measuring success in negotiation was of a "neutral" character (Figure 8.3b). In spite of a positive negotiation effort, escalation of time-related constraints was not associated with a high degree of success in constraints negotiation. The dimension of constraints related to the lack of skills and social factors was significantly and negatively associated with



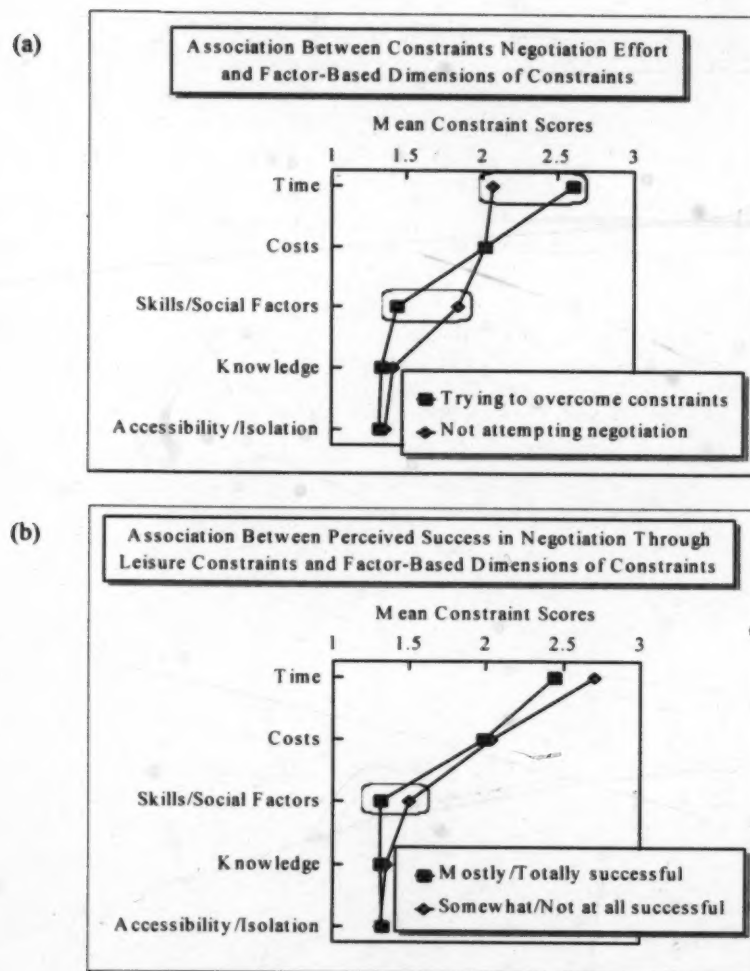
Circled items indicate statistically significant results.

Figure 8.1



Circled items indicate statistically significant results.

Figure 8.2



Circled items indicate statistically significant results.

Figure 8.3

both negotiation effort and success in this endeavour. The remaining three dimensions of constraints (*Costs*, *Knowledge*, and *Accessibility/Isolation*) showed no differences in the strength of experienced constraints according to the negotiation variables.

Table 8.4 presents variations in the negotiation variables from a different perspective, i.e., according to the clusters of constrained individuals, or sub-groups of the sample obtained by

Table 8.4
Variations in Initiation and Outcomes of Negotiation by Constraint Cluster Membership

	Clusters of Constraints		
	Isolation /Knowledge /Personal %	Costs %	Time %
<i>1. Initiation of Negotiation Process</i>			
Attempting negotiation	73.5	86.8	91.5
Not attempting negotiation	26.5	13.2	8.5
Totals (n)	(34)	(53)	(59)
<i>2. Perceived Success in Negotiation</i>			
Mostly/Totally successful	24.0	34.8	35.8
Somewhat / Not at all successful	76.0	65.2	64.2
Totals (n)	(25)	(46)	(53)
<i>3. Frequency of Involvement in Desirable Leisure Pursuits</i>			
Most of the time / Always	41.2	41.5	30.5
Some of the time / Never	58.8	58.5	69.5
Totals (n)	(34)	(53)	(59)
1. Chi-square = 5.77; d.f. = 2; p = 0.056			
2. Chi-square = 1.18; d.f. = 2; n.s.			
3. Chi-square = 1.78; d.f. = 2; n.s.			

cluster analysis performed on the factor-based dimensions of constraints (see Chapter 4). There were no statistically significant cluster-based variations in negotiation variables. There was, however, tentative evidence indicating that respondents who reported themselves as being affected mainly by costs and especially by time-related constraints were more likely to attempt negotiation than those mostly affected by other categories of constraints, such as isolation, lack of knowledge or personal reasons. The vast majority (91.5%) of the *Time* cluster members tried to overcome their constraints, and only 8.5% did not attempt negotiation, compared to 86.8% of negotiators in the *Costs* cluster and 73.5% of negotiators in the *Isolation/Knowledge/Personal Reasons* cluster. Consistent with the previously discussed statistical inferences, the data indicate that the last category of constraints may be the most powerful (Crawford et al., 1991) and therefore might negatively interfere with the initiation of constraints negotiation. Also the data demonstrate that

despite generally intensive negotiation effort in each of the clusters of constrained individuals (ranging from 73.5% to 91.5% of negotiators), the outcomes of negotiation showed considerably lower proportions of successful "attempters." More than 60% of them considered challenging their leisure constraints as only somewhat successful or not at all successful, and more than half of them reported inability to enjoy favourite leisure pursuits most of the time or always.

Table 8.5 shows that negotiation drive and resulting degree of success apparently are not consistent with the main aspects of constrained leisure, such as inability to participate as frequently as preferred or to start new leisure activities, as well as ceasing activities because of constraints.

Motivational factors and negotiation through leisure constraints

The variables used to measure leisure motivation in this study included anticipated leisure benefits and perceived value of leisure (importance of having some leisure and recreation time). Table 8.6 provides a general perspective on how these factors may affect the negotiation process. The results of chi-square tests indicate that the overall intensity of leisure motivation had a significant positive association with both the initiation of and success in leisure constraints negotiation. All groups of respondents were characterized by a high negotiation drive. However, 92% of individuals who placed an especially high value on their leisure, describing it as "very important," undertook some form of constraints negotiation, compared to 74.2% of people who characterized their leisure as only "important." Likewise, half (49%) of negotiators who considered their leisure to be very important were mostly or totally successful in challenging their leisure constraints, compared to 24.4% of them who described leisure as simply important.

The relationship between the overall strength of anticipated benefits and negotiation drive was not statistically significant. However, consistent with other statistical results presented in Table 8.6, there was a significant association between the intensity of anticipation of leisure benefits and degree of success in constraints negotiation. While a large proportion of "optimists" or people characterized by high expectation of possible leisure gains (42.1%) were mostly or totally successful in surmounting their leisure impediments, only 17.4% of "pessimists," amalgamating individuals with relatively weak anticipation of leisure benefits, attained that level of success, 82.6% of them being predominantly somewhat successful or not at all successful in negotiation.

The strength of anticipated benefits of leisure was also positively and significantly associated with negotiation variables on the highest level of specificity, namely in relation to individual benefit items (Figures 8.4 and 8.5). Mean scores on many benefit items were significantly higher

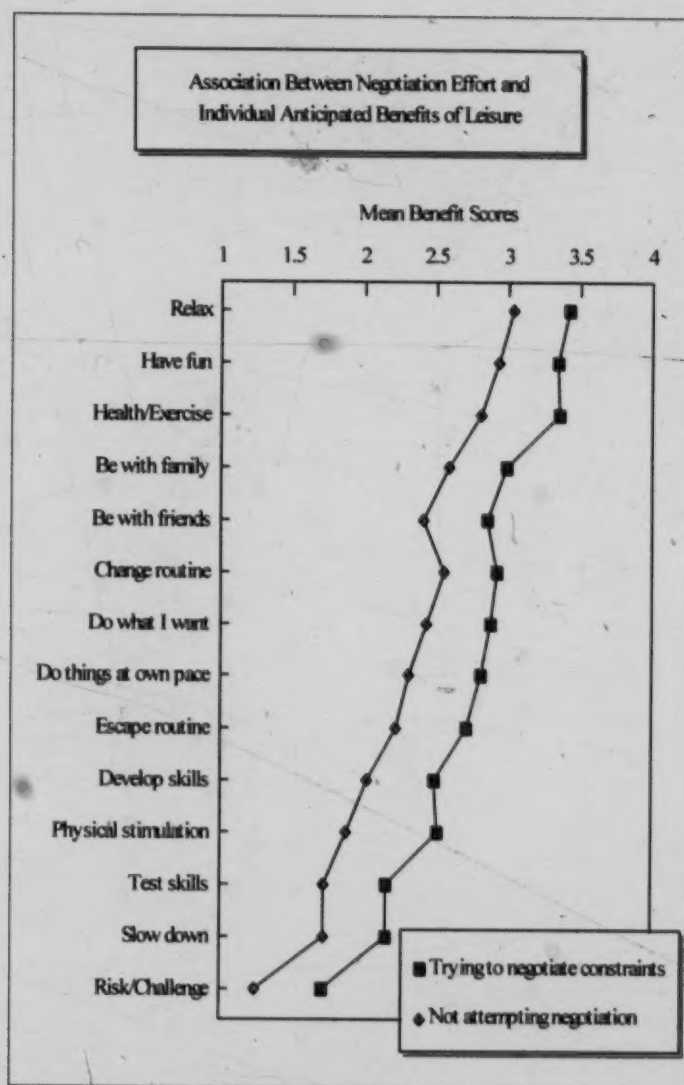
Table 8.5
Variations in Initiation and Outcomes of Constraints Negotiation Depending on Ways of Encountering Leisure Constraints

Negotiation Variables	The Ways Leisure Constraints Were Encountered					
	Inability to reach desired frequency of participation		Inability to start desired leisure activities		Ceasing involvement in past activities in spite of desire to proceed with participation	
	Yes %	No %	Yes %	No %	Yes %	No %
<i>I. Negotiation Drive</i>						
Trying to overcome constraints	87.1	76.8	85.3	83.7	80.9	88.6
Not attempting negotiation	12.9	23.2	14.7	16.7	19.1	11.4
Totals (n)	(147)	(56)	(68)	(135)	(115)	(88)
Chi-square	3.23			0.09		2.26
d.f.	1			1		1
p	n.s.			n.s.		n.s.
<i>2. Success in Leisure Constraints Negotiation</i>						
Mostly / Totally successful	39.7	35.7	35.1	40.5	32.6	46.1
Somewhat / Not at all	60.3	64.3	64.9	59.5	67.4	53.9
Totals (n)	(126)	(42)	(57)	(111)	(92)	(76)
Chi-square	0.21			0.47		3.17
d.f.	1			1		1
p	n.s.			n.s.		n.s.

Table 8.6
 Variations in Initiation and Outcomes of Negotiation Process Depending on Leisure Motivation

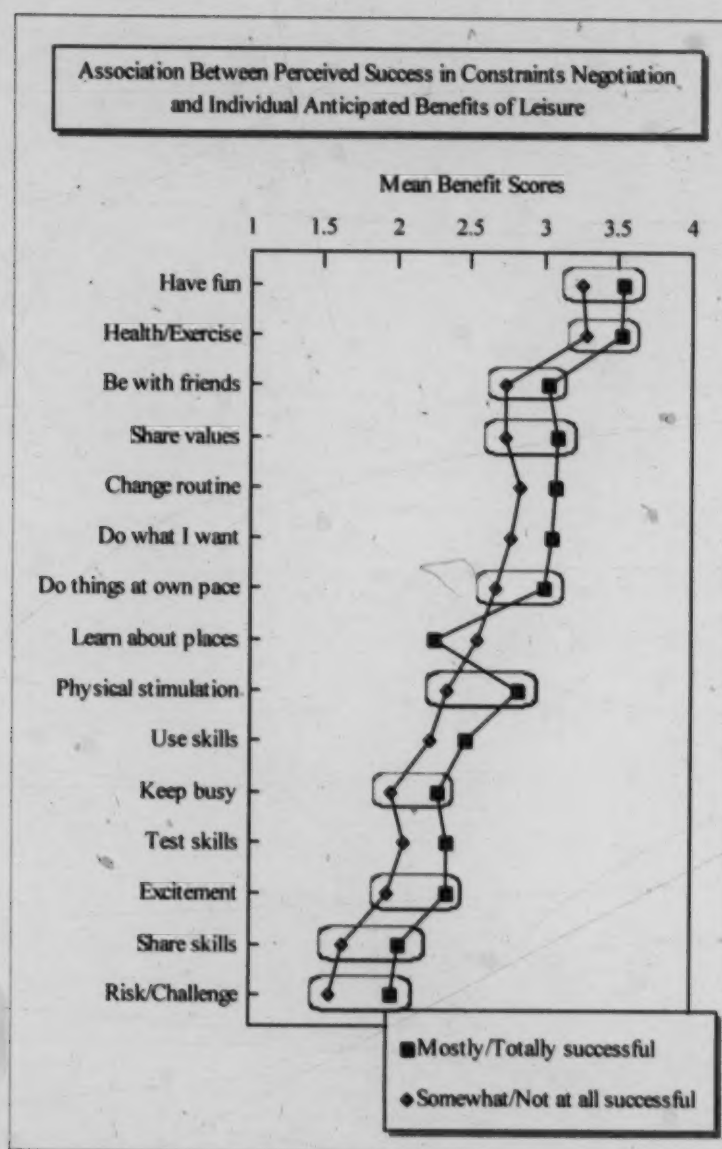
	Importance of Having Leisure Time		Clusters of Anticipated Leisure Benefits	
	Very important	Important	Optimists (strong anticipation)	Pessimists (weak anticipation)
	%	%	%	%
Initiation of Negotiation Process				
Trying to overcome constraints	92.0	74.2	86.0	75.0
Not attempting negotiation	8.0	25.8	14.0	25.0
Totals (n)	(112)	(62)	(171)	(32)
Chi-square	10.24		2.44	
d.f.	2		1	
p	0.001		n.s.	
Perceived Success in Negotiation				
Mostly / Totally successful	49.0	24.4	42.1	17.4
Somewhat / Not at all successful	51.0	75.6	57.9	82.6
Totals (n)	(102)	(45)	(145)	(23)
Chi-square	7.77		5.10	
d.f.	2		1	
p	0.005		0.024	

among respondents who attempted to negotiate constraints than among those who did not, and higher among successful negotiators than among relatively unsuccessful ones. The primary inference from these results is that the effort and success in constraints negotiation vary depending on specific leisure benefits. In other words, some anticipated benefits, such as the ones presented on the graphs, could be better stimulants in the negotiation process, than other benefits. (The latter ones did not show significant association with the negotiation variables). There was a remarkable consistency in the relationship between anticipated benefits and both the initiation of and perceived success in constraints negotiation; the majority of benefit items in Figure 8.4, describing relation to negotiation effort, recur in Figure 8.5, which shows positive associations with the outcomes of this effort. This is an additional indication of a strong influence of perceived leisure benefits all the



All differences are statistically significant.

Figure 8.4



Circled items indicate statistically significant results.

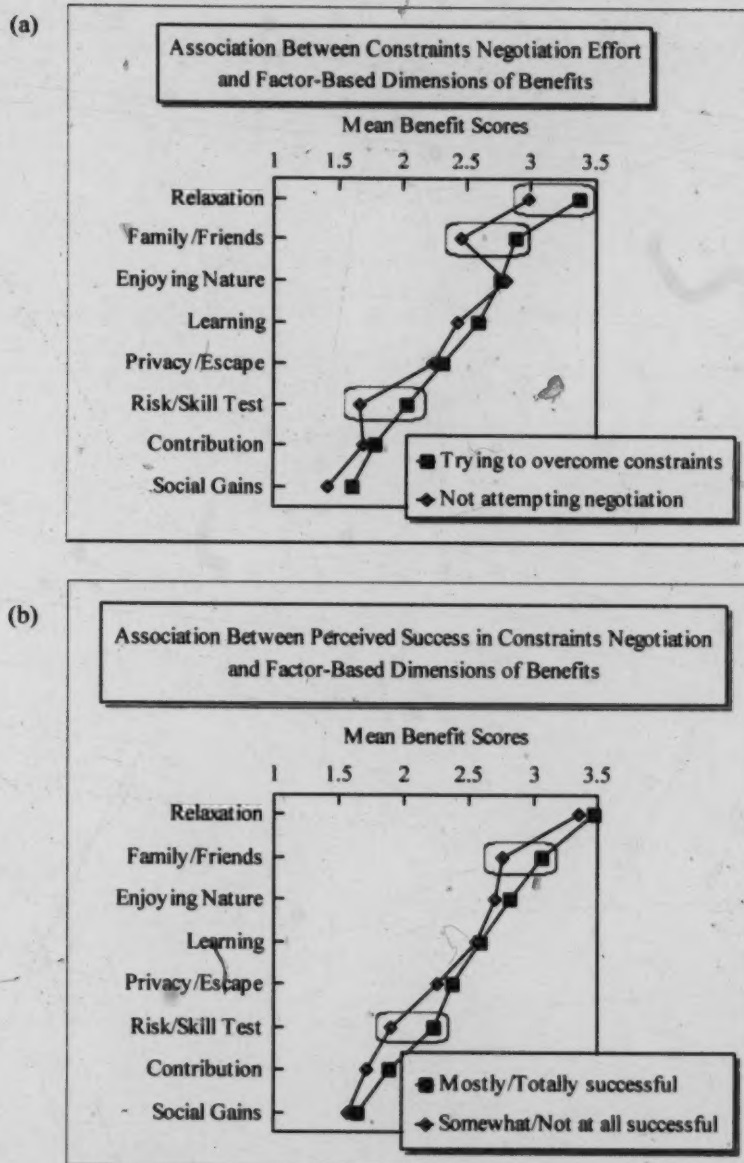
Figure 8.5

way through the constraints negotiation process.

The finding that the magnitude of some individual benefits has a positive relationship with negotiation variables, while other items do not show significant associations, denotes that the individual non-significant associations may cancel off significant ones, and a general analysis from the overall perspective may not yield big differences in terms of influence on negotiation variables. This explains why the analysis of relationship between the general strength of anticipated benefits and negotiation drive (Table 8.6), did not yield significant results.

Similar analysis of associations of negotiation variables with the intensity of anticipated benefits, but on a more general level, according to the types of benefits (Figure 8.6a,b), reconfirms a previous observation that the association in question is dependent on the nature of perceived leisure benefits. Benefits dimensions related to risk taking and skill testing and also to enjoying company of family and friends were positively and significantly associated with both initiating negotiation and succeeding in surmounting leisure constraints. This finding can be explained by the important role of social context and interactional processes in leisure. Samdahl and Jekubovich (1997), for instance, concluded based on a qualitative study that social relationships must be the most influential factors that shape leisure. "It is apparent that people do not just want leisure; they want to share their leisure with someone" (p. 445). At the same time, high perception of relaxation as a possible benefit of leisure yielded strong association with the negotiation effort, but was not significantly related to success in negotiation (both successful and relatively unsuccessful negotiators were distinguished by equally strong anticipation of relaxation as a benefit from their leisure).

Analysis of variations in negotiation variables according to the clusters of respondents amalgamated by similar leisure benefits expectations, resulted in a statistically significant association with attempting negotiation, but did not yield significant results in terms of perceived success in negotiation (Table 8.7). Almost equally high proportions of the "adventurous socialites" and "appreciative optimists" were classified as "negotiators" (92.5% and 90.4% respectively), whereas "private naturalists" were distinguished by relatively low aspiration to initiate negotiation (77.3% of them reported involvement in some form of constraints negotiation). This trend was still visible, though not on a statistically significant level in the variation in perceived success in constraints negotiation: while equal and relatively high percentages of the "adventurous socialites" and "appreciative optimists" found themselves to be mostly or totally successful in this venture (44.9% and 45.7%), a lower proportion of the "private naturalists"



Circled items indicate statistically significant results.

Figure 8.6

Table 8.7
Variations in Initiation and Perceived Outcomes of Constraints Negotiation by the Clusters of Anticipated Leisure Benefits

	Clusters of Anticipated Leisure Benefits		
	Adventurous Socialites %	Private Naturalists %	Appreciative Optimists %
<i>1. Initiation of Negotiation Process</i>			
Trying to overcome constraints	92.5	77.3	90.4
Not attempting negotiation	7.5	22.7	9.6
Totals (n)	(53)	(66)	(52)
<i>2. Perceived Success in Negotiation</i>			
Mostly / Totally successful	44.9	36.0	45.7
Somewhat / Not at all successful	55.1	64.0	54.3
Totals (n)	(49)	(50)	(46)
1. Chi-square = 6.82; d.f. = 2; p = 0.033			
2. Chi-square = 1.16; d.f. = 2; n.s.			

(36.0%) perceived themselves as being at least mostly successful. Relatively less pronounced associations between benefits and negotiation variables in this analysis compared to the results obtained with individual items and dimensions of benefits (Figures 8.4 through 8.6) may be attributed to a high level of generality in the analyses involving clusters, when individual significant differences can be "neutralized" by non-significant associations.

Constraints negotiation and leisure participation

There was no statistically significant evidence to suggest that the effort and ability to negotiate leisure constraints influenced the overall levels of leisure participation (Table 8.8). The frequencies, however, suggest a higher proportion of negotiators in the cluster embracing active participants in leisure (52.6%) than non-negotiators, who did not challenge leisure constraints (37.5%). Conversely, "inactives," or people characterized by relatively low overall participation in leisure activities, accounted for 62.5% of non-negotiators, compared to only 47.4% of negotiators in the "inactive" category. Data on leisure participation depending on the perceived degree of

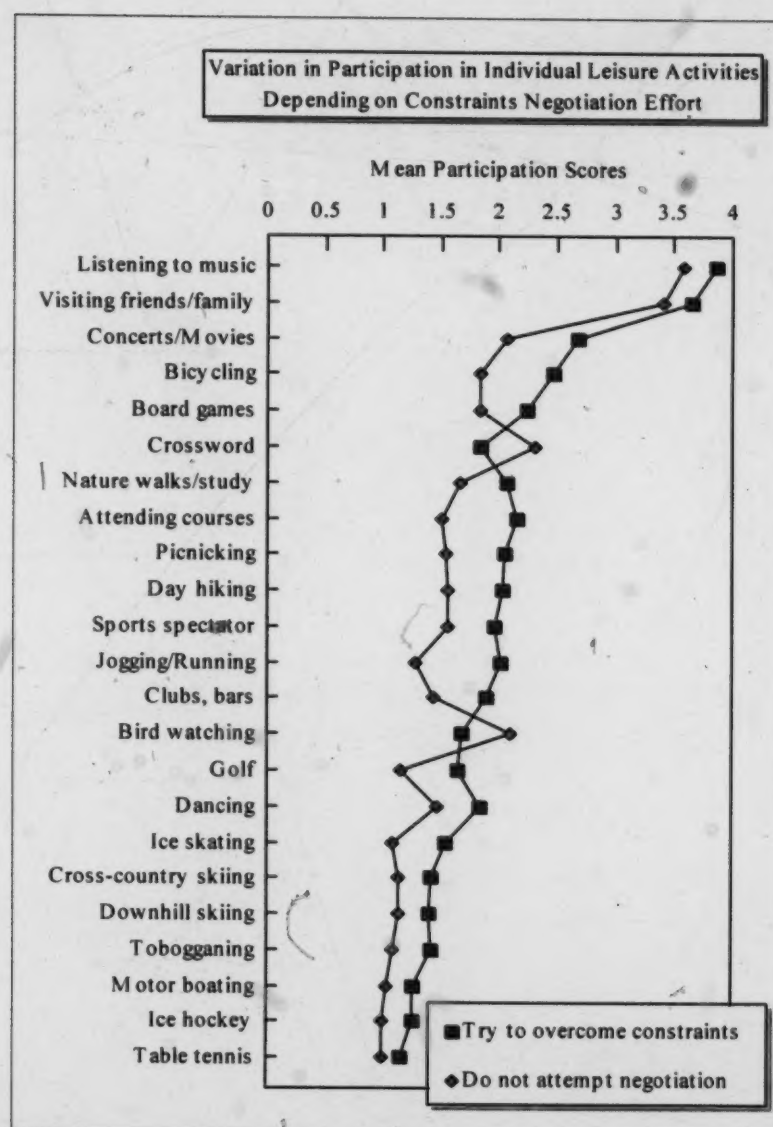
Table 8.8
Variations in Overall Intensity of Leisure Participation Depending on Constraints Negotiation Effort and Perceived Success in Surmounting Leisure Constraints

	Attempting negotiation	Not attempting negotiation	Mostly/Totally successful in negotiation	Somewhat/ Not at All successful
	%	%	%	%
<i>Intensity of Participation</i>				
Active participants	52.6	37.5	55.4	50.5
Inactives	47.4	62.5	44.6	49.5
Totals (n)	(171)	(32)	(65)	(103)
Chi-square		2.47		0.38
d.f.		1		1
p		n.s.		n.s.

success in constraints negotiation did not show any differences. There is a possibility (by analogy with the above described analysis of the associations with leisure benefits) that the differences within the data are better identifiable at more specific analytical levels, because individual significant and non-significant associations can cancel each other when an attempt is made to identify relationships at a very general level.

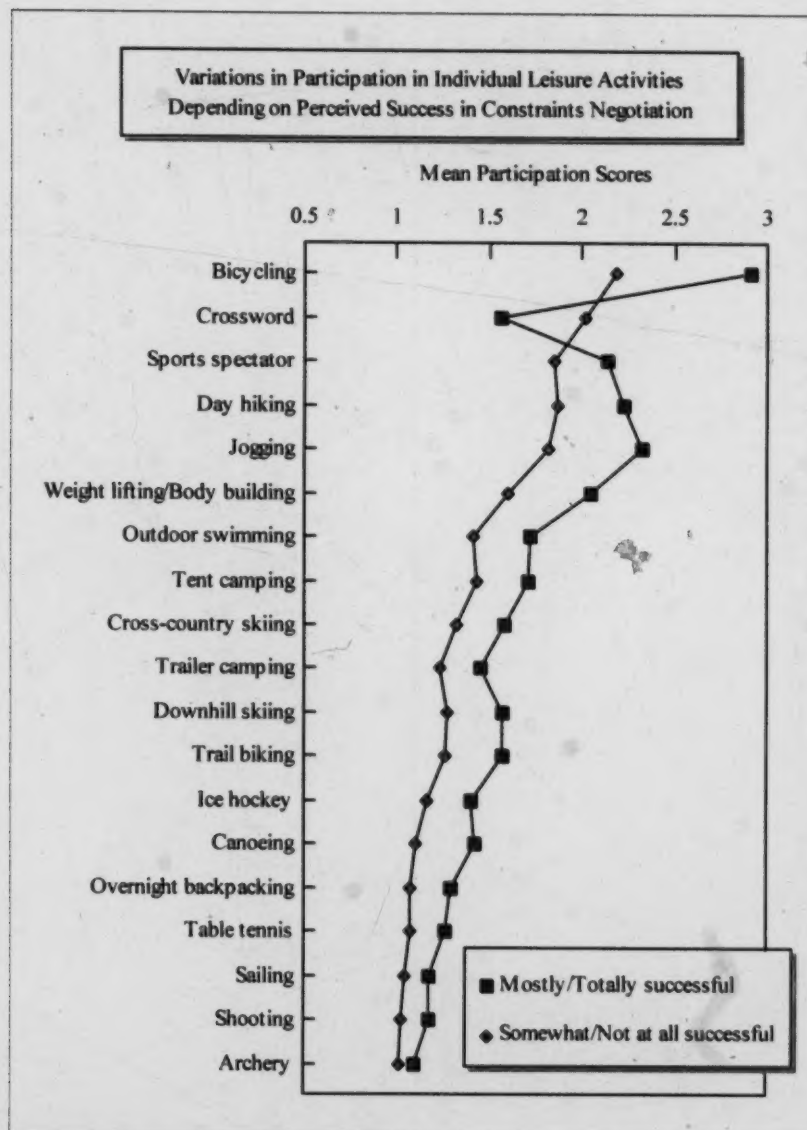
This assumption is corroborated by the evidence presented in Figures 8.7 and 8.8, which show differences in mean participation scores in individual leisure activities depending on negotiation effort and success in negotiation (resulting from one-way analysis of variance; participation in specific activities being used as the dependent variable). Overall, 40 out of 77 questionnaire items showed variations in their means according to at least one out of the two negotiation variables. The associations were mostly positive. There was a greater frequency of participation in leisure activities among the people who attempted to negotiate constraints than among those who did not. Likewise, the individuals regarding themselves as successful negotiators, participated more frequently in leisure activities than "somewhat successful" or "not at all successful" respondents.

Specific, activity-based analysis revealed variations in the significance and direction of the relationships between leisure participation and negotiation variables depending on individual leisure activities. First, half of the 77 original activity items (37 activities or 48%) did not reveal



All differences are statistically significant.

Figure 8.7



All differences are statistically significant.

Figure 8.8

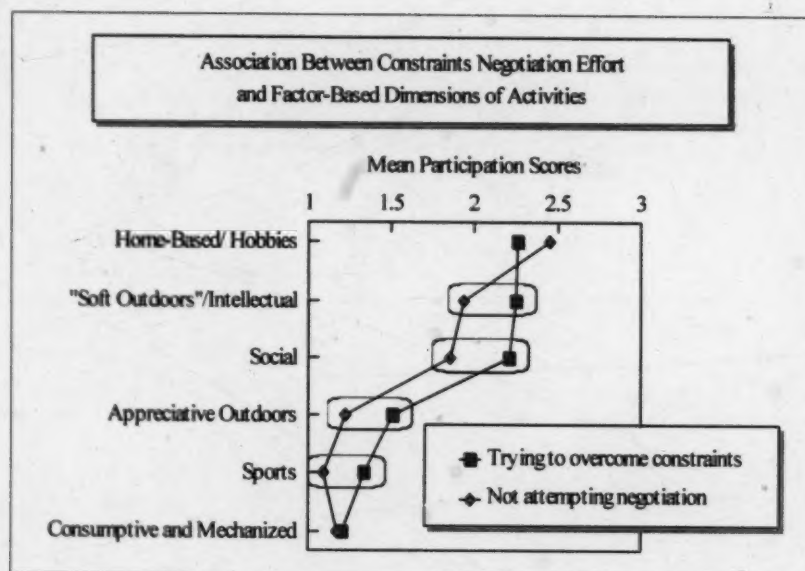
variations in mean scores according to negotiation variables. The vast majority of the remaining 40 activities were positively associated with negotiation variables, although four activities had an inverse relationship with negotiation. For example, the negotiators who preferred bird watching had lower mean participation scores than the participants in the mentioned activity who did not attempt negotiation, and solving crossword puzzles was negatively associated with both attempting and perceived success in negotiation.

There were also variations in "participation response" to negotiation effort and success depending on the *types* (factor-based dimensions) of leisure activities (Figure 8.9). Participation in various kinds of sport, (appreciative) outdoor recreation, "soft outdoors" and intellectual leisure, and social pursuits was positively (although modestly) linked with constraints negotiation effort (Figure 8.9a). Consistent with these results, sport and outdoor activities were positively associated with success in negotiation process; in both cases mean participation scores of successful negotiators exceeded levels of participation reached by relatively unsuccessful challengers of constraints (Figure 8.9b). The rest of the activity types (*Intellectual*, *Consumptive*, and *Hobbies/Home-Based* dimensions) showed no variation with success in constraints negotiation.

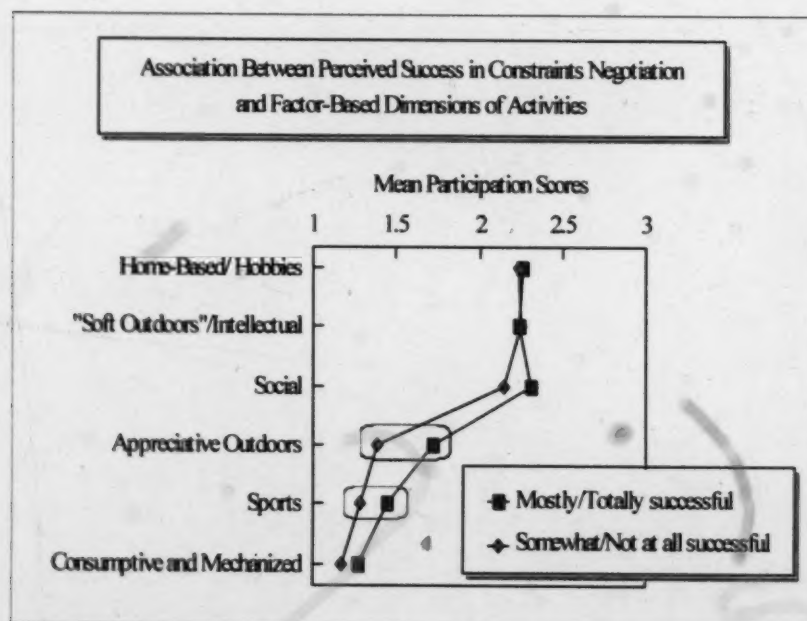
As far as cluster-based variations in negotiation variables were concerned, both the attempt at and success in negotiation were more frequent among physically and socially active respondents, compared to those whose preferences were for intellectual, home-based activities, and hobbies (Table 8.9). Almost all members (97.5%) of the Physically/Socially Active cluster tried to overcome their leisure constraints, compared to 82.3% of individuals belonging to the *Intellectual/Hobbies/Home-Based* cluster classified as negotiators. Furthermore, more than half of the first cluster members (59%) felt that they succeeded in negotiation, compared to only 26.5% of "mostly" or "totally successful" individuals in the last cluster.

The described patterns may be explained by a positive association between leisure motivations and negotiation potential unveiled earlier in this chapter. The data of Chapter 5 (e.g., Table 5.4) indicate that participants in physically and socially intense pursuits tended to attach a higher value to their leisure than members of the *Intellectual/Hobbies/Home-Based* cluster of leisure activities. Relatively high levels of leisure motivation may account for a high negotiation potential. The lower degrees of leisure motivation among members of the last cluster can, in turn, be attributed to the finding that they were relatively more susceptible to intrapersonal and interpersonal constraints (Chapter 7, Table 7.5), which may represent the most serious leisure hindrances affecting leisure motivation and preferences (Figure 7.16). As proposed in Chapter 7, resorting to hobbies,

(a)



(b)



Circled items indicate statistically significant results.

Figure 8.9

Table 8.9
Variations in Attempts at and Success in Constraints Negotiation by the Activity Clusters

	Clusters of Leisure Activities	
	Physically/ Socially Active %	Intellectual/Hobbies/ Home Based %
<i>1. Initiation of Negotiation Process</i>		
Attempting negotiation	97.5	82.3
Not attempting negotiation	2.5	17.7
Totals (n)	(40)	(62)
<i>2. Perceived Success in Negotiation</i>		
Mostly/Totally successful in negotiation	59.0	26.5
Somewhat/ Not at all successful	41.0	73.5
Totals (n)	(39)	(49)
1. Chi-square = 5.44; d.f. = 1; p = 0.020		
2. Chi-square = 9.46; d.f. = 1; p = 0.002		

home-based recreation or other types of activities that are self-contained, not energy consuming or costly, and often do not have "special" requirements, such as high skills, might be the way in which some people deal with their leisure constraints (including modifications of their leisure preferences) in order to be able to participate.

The Nature of Negotiation Process: Negotiation Strategies

Leisure variables and negotiation strategies: general associations

In order to identify the relationships of leisure variables with adoption or non-adoption of a particular type of negotiation strategy, the data on the factor-based dimensions of strategies were converted into binary variables. The frequency distribution revealed that the Flexibility/Dedication dimension dominated other types of negotiation strategies, being the most "popular" choice among negotiators. The overwhelming majority of them (162 out of 170 individuals or 95.3%) utilized a diversified set of strategies comprising the mentioned dimension. This finding indicates that a flexible, creative approach to negotiation, reflected in the Flexibility/Dedication dimension (Table 8.2), may be relatively more effective in terms of "making the difference" in surmounting

constraints, compared to alternative negotiation tactics, taking into account that an individual can be facing an array of different leisure impediments. The mentioned dimension of negotiation strategies was excluded, however, from the subsequent analysis due to lack of variation, and the inferences reported below are the results of chi-square tests performed on the remaining five dimensions, representing the types of negotiation strategies.

The analysis presented in Tables 8.10 and 8.11 targeted the following goals: (1) to find out if there were particularly "successful" strategy choices in terms of perceived success in negotiation and overall intensity of participation; (2) to identify how the overall intensity of constraints and leisure motivation was related to the choice of negotiation strategies.

Overall, there was no evidence in the data to suggest that success in overcoming leisure constraints as well as the overall intensity of leisure participation were associated with the choice of particular types of negotiation strategies (Table 8.10). As regards the overall strength of leisure constraints, it did influence the decisions related to developing family strategies and modifying finances (Table 8.11). Relatively highly constrained individuals more frequently resorted to these types of strategies (51.8% for both the *Developing Family Strategies* and *Modifying Finances* dimensions) than the members of the relatively unconstrained cluster (28.3% and 39.1% respectively). The rest of the negotiation dimensions did not show significant correlation with the overall intensity of leisure constraints experienced.

Concerning variations in the types of negotiation strategies in accordance with motivations for getting involved in leisure and recreation, the importance of having leisure time was not associated with a particular negotiation strategy choice (Table 8.11). A chi-square test involving the overall intensity of anticipated leisure benefits as an independent variable resulted in a significant positive association with only one negotiation dimension, related to modifying finances. A higher proportion of "optimists," or individuals who had relatively high leisure expectations (56.2%), tended to more actively adopt strategies of the mentioned dimension, aimed at improving their financial situation in order to achieve their leisure aspirations. In contrast, "pessimists" were distinguished by a relatively weak anticipation of leisure benefits, and consequently, by a weaker negotiation effort (33.3%).

To conclude, the data imply that in some instances the overall strength of leisure constraints and anticipated leisure benefits can affect the choice of negotiation strategies. At the same time, there was no statistically valid evidence to suggest that the degree of success in constraints negotiation as well as the general intensity of involvement in leisure activities were associated with

Table 8.11
Variations in Negotiation Strategies by Overall Intensity of Leisure Constraints and Leisure Motivation

Dimensions of Negotiation Strategies	Intensity of Constraints		Importance of Having Leisure Time		Intensity of Anticipated Benefits	
	Clusters of constrained individuals %	Relatively unconstrained individuals %	Important %	Very important %	Optimists (strong anticipation) %	Pessimists (weak anticipation) %
<i>Developing family strategies</i>						
Adopting strategies	58.1	28.3	60.9	47.1	52.1	37.5
Not using strategies	41.9	71.7	39.1	52.9	47.9	62.5
Totals (n)	(124)	(46)	(46)	(102)	(146)	(24)
Chi-square; d.f.; p	11.92; 1; p = 0.001		2.42; 1; n.s.		1.75; 1; n.s.	
<i>Adjusting to externalities</i>						
Adopting strategies	36.3	28.3	43.5	32.4	34.2	33.3
Not using strategies	63.7	71.7	56.5	67.6	65.8	66.7
Totals (n)	(124)	(46)	(46)	(102)	(146)	(24)
Chi-square; d.f.; p	0.96; 1; n.s.		1.71; 1; n.s.		0.01; 1; n.s.	
<i>Taking it easy</i>						
Adopting strategies	58.9	50.0	58.7	52.0	58.9	41.7
Not using strategies	41.1	50.0	41.3	48.0	41.1	58.3
Totals (n)	(124)	(46)	(46)	(102)	(146)	(24)
Chi-square; d.f.; p	1.07; 1; n.s.		0.58; 1; n.s.		2.49; 1; n.s.	

Table 8.11 (Continued)

Dimensions of Negotiation Strategies	Intensity of Constraints		Importance of Having Leisure Time		Intensity of Anticipated Benefits	
	Clusters of constrained individuals %	Relatively unconstrained individuals %	Important %	Very Important %	Optimists (strong anticipation) %	Pessimists (weak anticipation) %
<i>Modifying finances</i>						
Adopting strategies	58.1	39.1	52.2	55.9	56.2	33.3
Not using strategies	41.9	60.9	47.8	44.1	43.8	66.7
Totals (n)	(124)	(46)	(46)	(102)	(146)	(24)
Chi-square; d.f.; p	4.82; 1; p = 0.028		0.18; 1; n.s.		4.31; 1; p = 0.038	
<i>Utilizing alternative resources/Modifying participation</i>						
Adopting strategies	85.5	78.3	87.0	80.4	84.2	79.2
Not using strategies	14.5	21.7	13.0	19.6	15.8	20.8
Totals (n)	(124)	(46)	(46)	(102)	(146)	(24)
Chi-square; d.f.; p	1.27; 1; n.s.		0.94; 1; n.s.		0.39; 1; n.s.	

certain types of negotiation strategies.

Constraint, benefit and activity-based variations in negotiation strategies

Table 8.12 presents the results of the analyses of relationships between affiliation with different clusters of leisure activities, benefits, and constraints and the choices of constraints negotiation strategies.

The findings demonstrate that the choice of a particular type of negotiation strategy was very much affected by the character of experienced leisure constraints. All negotiation dimensions, except for the last one (Utilizing alternative resources and modifying participation) showed statistically significant association with the clusters of constraints. As would be expected, the respondents affected primarily by time-related constraints, resorted more frequently to the strategies assisting them in balancing family obligations with leisure aspirations (*Developing family strategies* dimension) (77.8%), compared to the individuals affected by costs (45.7%), and especially to those who experienced constraints stemming from isolation, lack of knowledge and personal problems (37.5%). In contrast, significantly lower proportions of time-limited individuals handled their constraints by means of adjusting to externalities, relaxing or modifying finances, in comparison to representatives of the remaining clusters of constraints. The strategies of the *Taking it easy* and *Adjusting to externalities* dimensions were most frequently utilized by respondents belonging to the *Isolation/Knowledge/Personal Reasons* cluster of leisure constraints followed by individuals constrained mainly by costs. Seventy five per cent of respondents who experienced isolation, lack of knowledge, or had leisure constraints of personal character opted for a "take it easy" approach to tackling constraints to their leisure. The same type of approach to negotiation was practised by 65.2% of costs-constrained individuals, and by only 46.3% of time-constrained respondents. Similarly, more than half of people comprising the *Isolation/Knowledge/Personal Reasons* constraints cluster (54.2%) had chosen the *Adjusting to externalities* type of negotiation strategies, followed by 43.5% of individuals constrained by costs, compared to only 22.2% of the *Time* cluster members.

As expected, the vast majority of the costs-constrained individuals (71.7%) tried to adjust their financial situation to their leisure needs (*Modifying finances* negotiation dimension). The finding that an equally high proportion of members of the *Isolation/Knowledge/Personal Reasons* cluster (70.8%) tried the same type of negotiation strategies, is congruent with the Jackson and Rucks's (1995) observation that "some people tackle problems in a tangential manner rather than head-on" (p. 101). This indicates that sometimes it may be difficult to successfully predict a course of

Table 8.12
Variations in Constraints Negotiation Strategies by the Clusters of Constraints, Anticipated Benefits and Activities

Dimensions of Negotiation Strategies	Clusters of Constraints			Clusters of Anticipated Benefits			Clusters of Activities	
	Isolation/ Knowledge / Personal %	Costs %	Time %	Adventurous Socialites %	Private Naturalists %	Appreciative Optimists %	Physically/ Socially Active %	Intellectual/ Hobbies/ Home-Based %
<i>Developing Family Strategies</i>								
Adopting strategies	37.5	45.7	77.8	51.0	44.0	61.7	48.7	44.0
Not using strategies	62.5	54.3	22.2	49.0	56.0	38.3	51.3	56.0
Totals (n)	(24)	(46)	(54)	(49)	(50)	(47)	(39)	(50)
Chi-square; d.f.; p	15.70; 2; p = 0.000			3.07; 2; n.s.			0.19; 1; n.s.	
<i>Adjusting to externalities</i>								
Adopting strategies	54.2	43.5	22.2	26.5	36.0	40.4	35.9	42.0
Not using strategies	45.8	56.5	77.8	73.5	64.0	59.6	64.1	58.0
Totals (n)	(24)	(46)	(54)	(49)	(50)	(47)	(39)	(50)
Chi-square; d.f.; p	8.97; 2; p = 0.011			2.16; 2; n.s.			0.34; 1; n.s.	
<i>Taking it easy</i>								
Adopting strategies	75.0	65.2	46.3	57.1	54.0	66.0	56.4	62.0
Not using strategies	25.0	34.8	53.7	42.9	46.0	34.0	43.6	38.0
Totals (n)	(24)	(46)	(54)	(49)	(50)	(47)	(39)	(50)
Chi-square; d.f.; p	6.87; 2; p = 0.032			1.53; 2; n.s.			0.28; 1; n.s.	

Table 8.12 (Continued)

Dimensions of Negotiation Strategies	Clusters of Constraints		Clusters of Anticipated Benefits			Clusters of Activities		
	Isolation/ Knowledge / Personal %	Costs %	Time %	Adventurous Socialites %	Private Naturalists %	Appreciative Optimists %	Physically/ Socially Active %	Intellectual/ Hobbies/ Home-Based %
<i>Modifying finances</i>								
Adopting strategies	70.8	71.7	40.7	49.0	50.0	70.2	56.4	58.0
Not using strategies	29.2	28.3	59.3	51.0	50.0	29.8	43.6	42.0
Totals (n)	(24)	(46)	(54)	(49)	(50)	(47)	(39)	(50)
Chi-square; d.f.; p	11.80; 2; p = 0.003			5.57; 2; n.s.			0.02; 1; n.s.	
<i>Utilizing alternative resources/Modifying participation</i>								
Adopting strategies	79.2	87.0	87.0	85.7	80.0	87.2	87.2	88.0
Not using strategies	20.8	13.0	13.0	14.3	20.0	12.8	12.8	12.0
Totals (n)	(24)	(46)	(54)	(49)	(50)	(47)	(39)	(50)
Chi-square; d.f.; p	0.95; 2; n.s.			1.07; 2; n.s.			0.01; 1; n.s.	

negotiation based exclusively on the nature of experienced constraints. It is also possible that members of the latter cluster, who were affected by a relatively broad variety of leisure constraints compared to the individuals amalgamated by a single prevalent type of constraint (time or costs), were trying a broader spectrum of negotiation approaches. Similar to the previously described cases of *Adjusting to externalities* and *Taking it easy* dimensions of negotiation strategies, time-constrained individuals were significantly less likely to utilize the *Modifying finances* type of strategies (40.7%) in comparison to the other two clusters of constrained individuals.

The *Utilizing alternative resources and modifying participation* negotiation dimension did not show differences related to the nature of leisure constraints, but was distinguished by the highest percentage of "attempters" in each cluster of constrained individuals compared to other dimensions of negotiation strategies. This indicates that a flexible, creative approach to handling leisure constraints, characteristic for the mentioned dimension, was equally important for and applicable to all groups of constrained individuals.

The choice of negotiation strategies showed no significant variation according to the clusters of constrained individuals segmented by anticipation of different groups of leisure benefits, as well as by participation in different groups of leisure activities. It is worth mentioning, however, by analogy with the clusters of constraints, that negotiation strategies comprising the *Utilizing alternative resources and modifying participation* dimension attracted a uniformly high proportion of respondents in all clusters of benefits and activities, which exceeded percentages of individuals who adopted other types of negotiation strategies. These results provide additional evidence that a diversified set of strategies of the mentioned dimension represents a negotiation tool that was relatively more preferred and frequently resorted to, irrespective of variations in circumstances, such as the nature of experienced constraints, anticipated leisure benefits, or activity involvement.

Socio-Demographic Patterns Within Negotiation Data

Age-based variations

Overall, all age groups were characterized by relatively high proportions of negotiators (Table 8.13). Nonetheless, the data show a marked decline in the negotiation drive with advancing age. While almost all constrained respondents aged 35 or younger (95.5%) attempted some form of constraints negotiation, 72.5% of the oldest age group (older than 56 years) tried to overcome their constraints. The same trend was the case for the perceived success of negotiation, although not on a statistically significant level. Half (52.4%) of respondents from the youngest age-group managed

Table 8.13
Variations in Negotiation Potential and Choice of Negotiation Strategies by Age, Gender and Income

Dimensions of Negotiation Strategies:	Age			Gender		Household Income (\$)					
	35 or under	36-45	46-55	56 or over	Male	Female	30,000 or under	30,001- 50,000	50,001- 70,000	70,001- 90,000	Over 90,000
	%	%	%	%	%	%	%	%	%	%	%
<i>Negotiation Drive</i>											
Attempting negotiation	95.5	90.2	79.6	72.5	82.2	85.4	75.8	79.1	84.6	96.3	89.6
Not attempting negotiation	4.5	9.8	20.4	27.5	17.8	14.6	24.2	20.9	15.4	3.7	10.4
Totals (n)	(44)	(51)	(49)	(51)	(73)	(130)	(33)	(43)	(39)	(27)	(48)
Chi-square; d.f.; p	11.49; 3; p = 0.009				0.36; 1; n.s.		6.79; 4; n.s.				
<i>Perceived Success in Constraints Negotiation</i>											
Mostly/Totally successful	52.4	40.0	30.8	28.6	47.5	33.9	28.0	24.2	42.4	53.8	40.5
Somewhat/Not at all	47.6	60.0	69.2	71.4	52.5	66.1	72.0	75.8	57.6	46.2	59.5
Totals (n)	(42)	(45)	(39)	(19)	(59)	(109)	(25)	(33)	(33)	(26)	(42)
Chi-square; d.f.; p	5.90; 3; n.s.				2.95; 1; n.s.		6.88; 4; n.s.				
<i>Dimensions of Negotiation Strategies:</i>											
	%	%	%	%	%	%	%	%	%	%	%
<i>Family strategies</i>											
Adopting strategies	52.4	60.9	60.5	24.3	40.7	55.0	41.7	50.0	60.6	34.6	55.8
Not using strategies	47.6	39.1	39.5	75.7	59.3	45.0	58.3	50.0	39.4	65.4	44.2
Totals (n)	(42)	(46)	(38)	(37)	(59)	(111)	(24)	(34)	(33)	(26)	(43)
Chi-square; d.f.; p	13.70; 3; p = 0.003				3.14; 1; n.s.		5.19; 4; n.s.				

Table 8.13 (Continued)

Dimensions of Negotiation Strategies:	Age			Gender		Household Income (\$)					
	35 or under	36-45	46-55	56 or over	Male	Female	30,000 or under	30,001- 50,000	50,001- 70,000	70,001- 90,000	Over 90,000
	%	%	%	%			%	%	%	%	%
<i>Adjusting to externalities</i>											
Adopting strategies	40.5	30.4	31.6	35.1	30.5	36.0	50.0	64.7	24.2	42.3	9.3
Not using strategies	59.5	69.6	68.4	64.5	69.5	64.0	50.0	35.3	75.8	57.7	90.7
Totals (n)	(42)	(46)	(38)	(37)	(59)	(111)	(24)	(34)	(33)	(26)	(43)
Chi-square; d.f.; p	1.15; 3; n.s.			0.52; 1; n.s.		30.06; 4; p = 0.000					
<i>Taking it easy</i>											
Adopting strategies	52.4	52.2	63.2	64.9	50.8	59.5	75.0	64.7	57.6	57.7	37.2
Not using strategies	47.6	47.8	36.8	35.1	49.2	40.5	25.0	35.3	42.4	42.3	62.8
Totals (n)	(42)	(46)	(38)	(37)	(59)	(111)	(24)	(34)	(33)	(26)	(43)
Chi-square; d.f.; p	2.30; 3; n.s.			1.16; 1; n.s.		10.80; 4; p = 0.029					
<i>Modifying finances</i>											
Adopting strategies	66.7	54.3	60.5	29.7	54.2	52.3	75.0	67.6	57.6	42.3	39.5
Not using strategies	33.3	45.7	39.5	70.3	45.8	47.7	25.0	32.4	42.4	57.7	60.5
Totals (n)	(42)	(46)	(38)	(37)	(59)	(111)	(24)	(34)	(33)	(26)	(43)
Chi-square; d.f.; p	12.09; 3; p = 0.007			0.06; 1; n.s.		12.01; 4; p = 0.017					

Table 8.13 (Continued)

Dimensions of Negotiation Strategies:	Age				Gender		Household Income (\$)					
	35 or under	36-45	46-55	56 or over	Male	Female	30,000 or under	30,001- 50,000	50,001- 70,000	70,001- 90,000	Over 90,000	
	%	%	%	%	%	%	%	%	%	%	%	
<i>Utilizing alternative resources ...</i>												
Adopting strategies	76.2	82.6	86.8	89.2	86.4	82.0	79.2	79.4	84.8	88.5	83.7	
Not using strategies	23.8	17.4	13.2	10.8	13.6	18.0	20.8	20.6	15.2	11.5	16.3	
Totals (n)	(42)	(46)	(38)	(37)	(59)	(111)	(24)	(34)	(33)	(26)	(43)	
Chi-square; d.f.; p	2.82; 3; n.s.				0.56; 1; n.s.		1.21; 4; n.s.					

to successfully negotiate through leisure constraints, but this proportion was almost twice as low for those aged 56 or older (28.6%). These results can be explained by other findings in the current and previous chapters, namely by connections with leisure motivations. It has been demonstrated that leisure motivations were significantly lower among older respondents compared to their younger counterparts (Chapter 5). Less intensive leisure motivations may, in turn, account for a lower negotiation drive.

There were some significant age-related variations in the adoption of negotiation strategies. Adopting various strategies to re-allocate family responsibilities (the *Developing family strategies* dimension) reached its peak for the respondents aged 36 to 55 (60.9% of the 36 to 45-year-olds and 60.5% of respondents belonging to the 46-55 age group utilized this type of strategies) and then, as expected, was significantly lower for the people in their mid-fifties and older (24.3%). Likewise, modifying finances to meet leisure needs was reported at an almost equal and relatively high level up to the age of 55 (ranging from 54.3% to 66.7% of those who used these strategies), but was not as relevant for the oldest group of respondents (56 or older; 29.7%).

There were no distinct age-based variations in the rest three dimensions of negotiation strategies. *Utilizing alternative resources and modifying participation* was the first choice of strategic approach to leisure constraints among respondents of all age groups (yielded the highest proportions of people who adopted this type of strategies among all dimensions of negotiation strategies). Conversely, a relatively low percentage of individuals of all age groups used strategies of the *Adjusting to externalities* dimension.

Gender-based variations

As far as gender-based variations are concerned, there were no significant associations with any of the negotiations variables. Both males and females were equally determined to overcome constraints on their leisure (82.2% and 85.4% respectively). However, a slightly higher proportion of males perceived themselves as being accomplished in their negotiation effort. Almost half of them (47.5%) were mostly or totally successful in negotiation, compared to only one-third of female negotiators allocated to the "successful" sub-group (33.9%).

There were tentative results suggesting that a higher proportion of females (55.0%) adopted a set of negotiation strategies assisting them to adjust family responsibilities to their leisure needs (the *Family strategies* dimension), compared to male respondents (40.7%). The data also show that both males and females favoured negotiation strategies comprising the *Utilizing alternative*

resources and modifying participation dimension more than any other types of approaches to negotiation, whereas the strategies involving adjusting to externalities were the least popular ones.

Income-based variations

In order to make the analysis more systematic and avoid repetitive use of numbers, the numerical values for household incomes, presented in Table 8.13, were categorized in the following way: (1) low-income (household income of \$30,000 or under); (2) low-middle-income (\$30,001-\$50,000); (3) middle-income (\$50,001-\$70,000); (4) high-middle income (\$70,001-\$90,000); (5) wealthy (over \$90,000).

There was not enough evidence to suggest that there were significant variations in the initiation and outcome of constraints negotiation depending on financial status. The pattern of frequencies revealed, however, that generally, higher income-groups exhibited greater initiative in negotiation than low income respondents and were also relatively more successful as a result.

There were statistically significant income-based variations within three of the negotiation dimensions. The *Adjusting to externalities* dimension of strategies showed the best differentiation with respect to the income size, indicating that resorting to this type of negotiation tactic was more characteristic of the lower income groups. While relatively high proportions of dwellers of the low-income and low-middle-income households (50.0% and 64.7% respectively) adopted negotiation strategies of the mentioned dimension, the data show somewhat uneven declines with advancing income down to only 9.3% for the richest group of respondents (over \$90,000 per household). As expected, the rate of adopting strategies which targeted financial problems in order to accommodate leisure needs (the *Modifying finances* dimension), was also lower among wealthier respondents compared to the lower-income groups. As many as 75.5% of individuals from the households with income of \$30,000 and less adopted these strategies, followed by the low-middle-income group (\$30,001-\$50,000; 67.6%). Wealthier individuals exhibited less concentration on adjusting to the costs of leisure participation (42.3% of the respondents whose household income fell in between \$70,001 and \$90,000, and 39.5% of those with household income exceeding \$90,000 reported making some financial adjustments).

Similar income-related variations were observed for the individuals who have chosen to adopt a relaxed attitude (the *Taking it easy* dimension of strategies) in order to deal with their leisure constraints. It was obvious from the statistical results that resorting to such type of strategies was more typical of the lower income individuals; 75.0% and 64.7% of people belonging to the low-

income and low-middle-income households respectively, tried the strategies of the mentioned dimension. This proportion came down to an equal of 57.6% and 57.7% for the inhabitants of middle-income and high-middle-income households, and further dropped to only 37.2% for the wealthy individuals. The rest of the negotiation dimensions, *Developing family strategies* and *Utilizing alternative resources/Modifying participation* showed no statistically significant income-based variations.

Discussion and Conclusions

The empirical findings, which emerged from the statistical results in the foregoing sections of the chapter, may now be formally summarized in the set of conclusions stated below regarding the process of leisure constraints negotiation.

Negotiation effort and success

1. The first and central inference is that the survey results lend empirical support to the conceptualization of constraints as negotiable. It has been amply demonstrated that leisure constraints should not be viewed as necessarily insurmountable obstacles to participation. On the contrary, some people tend to actively respond to them, seek ways to negotiate through the impeding factors, and succeed in initiating and continuing leisure participation.

The vast majority of respondents declared the importance of leisure in their lives, but also reported being constrained in some ways in their leisure. Among constrained individuals only a small percentage did not attempt some form of negotiation. Furthermore, the data demonstrated that in some instances attempts at and success in constraints negotiation were associated not with unchanged activity participation levels, but with an increased participation (see below).

These results empirically substantiate and provide explanation of the findings reported earlier in this study (Chapter 7) as well as in the existing leisure literature (Shaw et al., 1991; Kay & Jackson, 1991) that the relationship between leisure constraints experienced and leisure participation is not necessarily inverse or negative, but may even be positive.

2. Initiation of the negotiation process was not generally related to the overall intensity of leisure constraints, but perceived success in constraints negotiation had a negative link to the strength of experienced constraints. However, both the effort and ability to negotiate leisure constraints were associated with the nature of experienced constraints.

Intensity of constraints was not correlated with the initiation of negotiation: more constrained individuals did not display significantly higher or on the contrary, lower urge to negotiate constraints. Success in negotiation, however, was inversely related to the overall strength of constraints: intensely constrained individuals more frequently perceived themselves as being less successful in overcoming obstacles to their leisure, as well as not being able to be involved in desirable activities on a continuous basis. At the same time it has been demonstrated that the significance and direction of the mentioned relationships were dependent on the nature of experienced constraints, and varied in accordance with their types. These variations indicate that different types of constraints may vary in terms of their potential negative effects on leisure decision-making, including the initiation of constraints negotiation.

3. Contrary to expectations, both the initiation of and perceived success in negotiation showed no variation according to the main aspects of constrained leisure or the ways of encountering constraints (inability to participate as frequently as preferred, ceasing participation because of constraints, etc.).

4. The data demonstrated that the impetus to and success in constraints negotiation were positively linked with motivation of getting involved in leisure, including the perceived general value of leisure and the magnitude and nature of anticipated leisure benefits.

The idea of a possible substantial role of motivation in the negotiation process was first corroborated on the highest level of generality. The perceived importance of leisure was positively associated with both attempting negotiation and success in this endeavour, and the overall intensity of anticipation of potential leisure benefits was significantly associated with increased success in constraints negotiation. The analysis also linked variations in the negotiation characteristics to the individual items of leisure benefits, their dimensions and clusters (groups of people having similar leisure expectations). These results provide the first empirical evidence supporting Jackson et al.'s (1993) assumption about a balance between motivations and constraints in the negotiation process.

5. Effort and ability to negotiate constraints ("negotiation potential") resulted in an unchanged or on some occasions in a greater leisure participation. The assumption that the effort and ability to negotiate constraints may result in a higher participation in leisure activities did not find empirical support on a general level. However, on some specific occasions negotiation effort and success were associated with the increased levels of leisure activity participation. It was observed at more specific levels of analysis that the initiation and outcomes of negotiation process were related to the nature of leisure activities, and varied significantly depending on the individual activity items, their

dimensions, or clusters. It has been discovered that negotiation attempts, as well as relatively more successful negotiation outcomes, were more prevalent among individuals involved in physically and socially intensive leisure than they were among people involved in intellectual endeavours, hobbies or home-based recreation. These patterns were explained by the findings discussed in this and preceding chapters (Chapter 5) involving links of leisure-related variables to leisure motivations. Relatively high levels of negotiation potential among physically and socially active leisure participants can be attributed to the finding that they were also distinguished by higher levels of leisure motivation compared to other groups of recreationists. Moreover, it has been discovered (Chapter 7) that the pursuers of physically and socially intense leisure were less susceptible to intrapersonal and interpersonal constraints, which are considered to be the most serious obstacles to leisure and hence, might be difficult to negotiate.

Negotiation strategies and other aspects of leisure

1. The perceived degree of success in overcoming leisure constraints and the overall intensity of leisure participation did not correlate with the choice of negotiation strategies (adoption of a particular type of negotiation strategies based on their factor-based dimensions).

2. At the same time, the data demonstrated that the overall strength of leisure constraints may affect the choice of negotiation strategies. For example, highly constrained individuals more frequently resorted to such negotiation tools as developing family strategies in order to have some leisure time, or modifying finances to cover costs of leisure participation. There was more differentiation, however, in the specific choices of negotiation strategies depending on the specific nature of experienced constraints. The data demonstrated that adoption of different types of negotiation strategies varied consistently according to the clusters of leisure constraints, proving thereby, that not so much the intensity of constraints as their *nature* determined the preferences for negotiation (consistent with results reported by Jackson and Rucks, 1995).

4. In general, there was no link between the choice of negotiation strategies and the magnitude of leisure motivation. There was no significant differences in adoption of different types of negotiation strategies depending on the importance of having some leisure time. Likewise, there was no variation among "optimists" (distinguished by anticipation of a broad variety of potential leisure benefits) and "pessimists" (low on overall benefits expectation) in choosing negotiation strategies, except for only one case involving the *Modifying finances* negotiation dimension, which was more frequently utilized by the "optimists." Also, there was no evidence in the data of

association between the nature of anticipated benefits or activities in which participation occurred and the choice of negotiation strategies.

Socio-demographic variations in negotiation data

Negotiation effort and some of the negotiation strategy preferences showed significant age-based variations. The negotiation drive was markedly lower among the people of advanced age. The same was true for adopting constraints negotiation tactics such as family strategies and modifying finances.

Income-based variations in negotiation process were confined to the types of negotiation strategies. There were substantial income-related variations within the three out of five considered dimensions of negotiation strategies, with the poorer groups of respondents giving more preference to types of strategies such as *Adjusting to externalities*, *Taking it easy*, and *Modifying finances*. The data exhibited no significant gender-related differences in the negotiation process.

Overall, the analysis revealed the highly complex nature of the process of leisure constraints negotiation, which is influenced in many ways by a variety leisure-related variables and also depends on personal characteristics of individuals.

CHAPTER 9

CONCLUSIONS

The major objective of this thesis was to uncover and explain links among different aspects of leisure, and thereby enhance understanding of leisure behaviour as an integrated process. At the same time, in the course of exploring these links, knowledge about specific aspects of leisure has been advanced, making the results of the thesis somewhat "twofold." Contributions of this study to existing knowledge are discussed here in the light of these two major developments, although the findings are usually intertwined and their demarcation into "integrating" and "specific" is largely artificial. The section of the chapter that follows the discussion of specific and integrated contributions intends to make up for this "dual" structure by attempting to describe leisure decision making as a process in the light of the findings resulting from the study.

Extension of Knowledge in Specific Areas of Leisure

This study has contributed to increased understanding of the following specific areas of leisure behaviour: (1) anticipated benefits of leisure and leisure motivations; (2) environmental attitudes and leisure participation; (3) leisure constraints and their negotiation.

There are a number of important common developments following from this research that are characteristic to each individual aspect of leisure considered in the study. First, versatile measurements of variables combined with multi-stage data classification has resulted in uncovering general patterns in leisure motivations, environmental attitudes, leisure constraints, and negotiation variables, and permitted the examination of these concepts from a variety of perspectives. The initial step in data classification, factor analysis, provided insights into the dimensionality of these concepts, and either confirmed previous patterns (e.g., in the case of leisure constraints) and established the validity of the data, or resulted in novel perspectives and uncovered formerly unexplored regularities (e.g., dimensions of anticipated benefits and negotiation strategies). In contrast, cluster analysis, which followed the factor-based classifications, unveiled patterns that clarified the nature of leisure as an *experience*. It resulted in the discovery of aggregates of people distinguished by similar combinations of anticipated leisure benefits, environmental attitudes, constraints encountered, and participation in similar assortments of leisure and recreation activities (or in uncovering different benefit, attitude, and constraint "profiles" along with distinctive "participation styles").

The second important feature of this study, which distinguishes it from previous research, is assessment of the associations among different aspects of leisure carried out in a systematic manner at various levels of generality (based on multi-stage classifications of the basic variables).

The following is a discussion of the specific objectives set in the study and the goals achieved.

Anticipated leisure benefits and leisure motivations

The following major goals of the study were fulfilled as the result of the examination of leisure motivations and anticipated leisure benefits. First, the study provides a systematic empirical investigation of the concept of leisure benefits by casting light on one of its dimensions, anticipated benefits. This has been accomplished by applying a comprehensive measurement tool, uncovering and analyzing general patterns in the data using alternative aggregation and classification techniques (factor and cluster analyses), exploring variations in anticipated benefits across demographic characteristics, and, finally, looking into their links with other aspects of leisure (see the section on integrated findings below). The results of these analyses contributed to "filling the void" between an advanced theoretical base in the field of leisure benefits and lack of systematic empirical research based on this framework.

Second, the thesis contributes to understanding of leisure motivations by providing a complex outlook on different motivation-related variables in their interaction. This goal was accomplished by combining a generalized approach to examination of motivations characteristic of previous research (Carroll & Alexandris, 1997; Ragheb & Tate, 1993) with specific measurements and analyses of motivation-related variables, such as anticipated leisure benefits. In fact, such "joint" consideration of variables reflecting different facets of leisure motivation, contributes to the primary, "integrative" objective of this study. However, the resulting integration is rather of "internal" character, being confined to the linkages within a specific field of leisure motivations.

The approaches outlined above resulted in the following insights into anticipated leisure benefits and motivations. Overall, the respondents demonstrated high levels of leisure motivation and awareness of potential benefits. Almost everyone in the sample (98.6%) anticipated some form of benefits from their leisure. Out of these people 80.5% were classified as "optimists," who scored high overall on benefit anticipation, or, in other words, expected to get a broad range of benefits from their leisure, whereas the "pessimists," who scored low on all benefit dimensions, were only 19.5% of the total. Also, as many as 87.5% of the sample showed that they placed a high value on their leisure by indicating that having some time allocated for leisure was either "very important" or

"important" for them.

Among the individual (factor-based) dimensions of anticipated benefits, those related to relaxation were the most important, followed by being with family and friends and enjoying nature. The rest of the eight dimensions of benefits included *Learning*, *Privacy/Escape*, *Risk/Skill Test*, *Contribution*, and *Social Gains*. The dimensions represented a basis for the benefit clusters, *Adventurous Socialites*, *Private Naturalists*, and *Appreciative Optimists*.

Lack of variation in the gender and economic characteristics of the respondents in terms of the benefits was expected because of the generally "universal" nature of the benefits. For instance, commonly mentioned benefits such as relaxation, enjoying company of family and friends, and getting privacy tend to "transcend" gender and income demarcations. In addition, it was demonstrated in Chapter 5 that the relationship between anticipated benefits and activity participation is flexible and dynamic, and equivalent benefits can be obtained from a variety of leisure activities. Thus, the barriers to participation related to financial situation, gender, or other factors can be overcome by substitution of one activity for another. Prevalent age-based variations in the majority of the variables were interpreted through the "life-cycle" concept, i.e., that there is a tendency for benefit anticipation to change throughout life (McPherson, 1991). Also, the finding that older respondents tended overall to attach less importance to their leisure and be less "optimistic" in general regarding potential benefits, is also logically sound. Many senior respondents may be retired and have more leisure time at their disposal compared to younger people. At the same time, some of them may show less enthusiasm about potential leisure benefits due to the fact that the spectrum of leisure opportunities may narrow with advanced age.

The data amply supported a proposition put forward at the outset of Chapter 5, viz that different aspects of leisure motivation should display a positive relationship with each other. Positive significant associations were confirmed on both general and specific levels. For example, more than 90% of those who put the highest value on their leisure (considered it to be "very important") were also categorized as "optimists" in terms of general intensity of leisure benefit anticipation. Also, the individuals who considered their leisure to be "very important" scored significantly higher on the majority of individual benefit items and dimensions (anticipated these benefits with a higher intensity) compared to those who declared their leisure to be simply "important" and especially "somewhat or not at all important."

The relationship between leisure motivations and leisure participation

Although the relationship between leisure motivation and participation formally belongs to the next section, it has been traditionally an essential component of research on leisure motivations. Thus, contributions in this area are discussed in the current section of the chapter. This relationship generally has been well covered by research; however, the present study puts previous findings on a new basis. Firstly, unlike previous studies, it provides a generic base for the analyses by concentrating on broad ranges of leisure and recreation activities, anticipated benefits, and on general, "non-specific" populations that varied socially, economically, and demographically. Secondly, as noted before, it provides not a single measurement of leisure motivation as related to leisure participation, but attempts a complex approach to the analysis by considering general motivation-related variables (such as general value placed on leisure or "optimistic" versus "pessimistic" stance toward leisure) in conjunction with specifically stated anticipated benefits.

The resultant findings supported the second proposition stated in Chapter 5, namely that different aspects of leisure motivations, including anticipated benefits, are positively associated with the intensity of leisure participation. The findings demonstrated a strong *mutual* (feedback) association between different types of leisure motivation and participation at various levels of generality. These results lead to an important conclusion about a very dynamic link between leisure motivation and participation. Stronger motivations (e.g., anticipated leisure benefits) may trigger intensity of leisure participation, but participation, in turn, may contribute to the intensity of anticipation of potential leisure benefits or to a greater value being attached to leisure.

The last of the propositions outlined in Chapter 5, stating that some leisure activities differentiate in the types of generated benefits, also has been supported by the data. It was established that anticipation of particular groups (clusters) of benefits were associated with somewhat higher participation levels in certain activities, suggesting a higher "relevance" of some leisure activities to certain benefits. Also, the clusters of respondents demarcated by different leisure "participation styles" varied significantly in terms of anticipation of certain types of potential leisure benefits. For example, expectations of excitement and enjoying risk and/or challenge were higher among people belonging to the cluster of physically and socially active recreationists, whereas intellectual, home-based pursuits and hobbies showed a better "benefit-generating potential" in terms of enjoying nature and learning about nature and places.

At the same time, although significant linkages between some types of leisure activities and specific types of benefits have been detected in the present and previous research, the variations are

more of intensity than of kind. This means that activities are usually not "mutually exclusive" when it comes to potential benefits, although some pursuits may be relatively more suitable for attaining certain benefits than others. The data show that a variety of benefits can be derived from a single type of activity, and the same benefit can be associated with many leisure pursuits.

The findings stated above have two major practical implications. On the one hand, activity-based variations in the types of potential leisure benefits warn practitioners against overgeneralizing the beneficial impacts of different leisure engagements. The "optimal" decisions about the delivery of leisure services presume the possibility of assessing "the best suitability" of alternative leisure pursuits in the view of desired benefits. On the other hand, the finding that many leisure activities may generate benefits similar in kind and intensity suggests that many activities are mutually substitutable in terms of potential beneficial outcomes. These results empirically corroborate previously stated ideas about "substitutability of leisure behaviour" (Iso-Ahola, 1986; Tinsley & Kass, 1978) and possess great feasibility for practical efforts to alleviate different leisure constraints by changing one ("restricted") leisure activity for another, still suitable for obtaining desirable benefits. These ideas and findings also are theoretically relevant and significant for exploring the operation of leisure constraints and their negotiation discussed and summarized later in this chapter.

Environmental attitudes and leisure participation

Traditionally, a specific area of leisure research involving environmental attitudes concentrated on their relationship with leisure participation. As outlined in Chapter 2, this study re-examined this relationship on a new basis, considering concerns and suggestions expressed in previous research. Among the innovations undertaken was the reformulation of Dunlap and Heffernan's (1975) hypotheses, which postulated that pro-environmental attitudes were positively associated with outdoor recreation and "appreciative" (environmentally friendly) activities. Unlike most previous studies that tested these hypotheses empirically, environmental attitudes were assigned an antecedent status. Also, this study posed an exploratory question: whether environmental attitudes are associated with activities other than those comprising outdoor recreation? Finally, the measurement issue was addressed by using generalized (aggregated) variables to test general linkages between environmental attitudes and leisure participation.

Consistent with other research, the data showed that pro-environmental ("ecocentric") attitudes were modestly, but significantly, linked to participation in environmentally appreciative leisure

activities, while consumptive and mechanized recreation was somewhat negatively related to the ecocentric disposition. Another hypothesis postulating a positive link between pro-environmental attitudes and participation in outdoor recreation in general found mixed support in the existing literature and was not confirmed in this study.

Overall, congruent with previous studies, the results of the analyses did not indicate a strong association between environmental attitudes and the character of leisure participation. The important inference following from this finding is that the focus of research should probably switch from the "direct" examination of the link between environmental attitudes and leisure participation to considering the possibility of influence of other, "external," variables that can modify the relationship.

The data in Chapters 5 and 6 support this conclusion by providing some insights into complex interrelationships among attitudes and leisure experiences, which underlie "final," observable behavioural outcomes (leisure participation). For example, detailed data on individual leisure activities (Figure 6.2) indicate that, contrary to expectations, not all of the environmentally appreciative pursuits, which also presumed especially close "wilderness" contacts with nature (e.g., backpacking and canoeing), were associated with stronger pro-environmental attitudes. In addition, consumptive, mechanized, or other "intrusive" pursuits did not show much significant relationship with the technocentric orientation. Overall, these data indicate that being "environmentally friendly" or "technocentric" does not mean immediate and direct reflection in someone's leisure behaviour.

At the same time, a number of "softer," not necessarily "wilderness," outdoor pursuits, with a flavour of education and hobbies (nature walks and study, day hiking, and bird watching) showed the strongest positive association with the ecocentric disposition. The explanation can be found in the data assembled in Figure 5.9, which demonstrates that active participants in these activities were also distinguished by a higher expectation of leisure benefits related to privacy and enjoying/studying nature (were classified as "private naturalists"). These findings indicate that differences in *anticipated leisure benefits* might be more indicative of the "final," behavioural outcomes, such as leisure participation, than variations in environmental attitudes. Figure 5.10 renders further support to this idea, indicating that the *Appreciative Outdoors* and *Consumptive and Mechanized* dimensions of leisure activities showed no variation according to the different aggregates of anticipated leisure benefits. This may (at least partially) account for a modest relationship between environmental attitudes and participation in "environmentally appreciative" or

"not appreciative" outdoor leisure (people may have many other reasons of choosing a particular activity, besides environmental considerations). The possible effect of anticipated benefits on this relationship is discussed in more detail in the ensuing section highlighting "integrated" findings of the study.

Broadening the data base of the study by including in the analyses activities other than conventionally used sets of outdoor pursuits was explored as another possible avenue for enhancing an understanding of the environment attitudes-leisure participation relationship. Some resultant statistically significant associations are worth highlighting, indicating that this approach may be worth further exploration. For instance, a positive significant association emerged between the neutral or technocentric stance and "non-environmentally oriented" pursuits, such as predominantly team sport activities, taken alone and in conjunction with social recreation (e.g., going to clubs and bars, dining out, and dancing). The finding that the pursuers of this type of recreation were also distinguished by an apathy toward nature-related leisure benefits (Table 6.5), brings us to a conclusion that the indifference toward the natural environment may be associated less with pursuing "extreme," consumptive or mechanized leisure than with involvement in a "neutral" type of recreation (which is neither particularly environmentally appreciative, nor "abusive" or "intrusive").

A positive association between appreciative, "soft outdoors" combined with intellectual leisure and ecocentric attitudes is also worth noting. Analyzing outdoor activities in combination with other pursuits brings us close to the notion of different leisure styles. This approach may contribute to a better understanding of the interrelationship between attitudes and leisure behaviour than focusing on individual leisure activities or their types. In this particular case, intellectual leisure may be linked to a higher educational level, which, in turn, may have contributed to a positive connection with pro-environmental views.

In summary, although this study, like its predecessors, has not uncovered a strong link between environmental attitudes and leisure participation, it casts new light on some particulars of this association by examining broader sets of leisure activities together with differently aggregated variables. Clusters of people aggregated according to a combination of their leisure endeavours made it possible to present the relationships with attitudes in a more "realistic" and complex manner, compared to "unilateral" approaches characteristic of previous research, which considered either individual leisure pursuits or their dimensions. In real life, however, people tend to engage in sets of different leisure pursuits. For example, in this study appreciative outdoor activities

formed a single cluster with "soft outdoors," intellectual leisure, and home-based activities and hobbies (Table 6.4). This means that attitudes might be related not to individual activities or their types, but to their *combinations*, and considering this possibility in future research can contribute to better understanding of the association between environmental attitudes and leisure participation.

Leisure constraints and their negotiation

Given that this study is based on a *broadly defined*, general data set and a systematic examination of the links among the variables at different levels of specificity, its major contribution to the *specific* field of leisure constraints and their negotiation is a further corroboration of the following theoretical postulates: (1) Experiencing leisure constraints does not necessarily negatively affect participation (or have an inverse relationship with it); and (2) People tend to participate in leisure despite constraints (Kay & Jackson, 1991), or, in other words, to *negotiate* through them (Jackson et al., 1993). Furthermore, some assumptions underlying the hierarchical model of leisure constraints (Crawford et al., 1991) have been substantiated, and negotiation strategies and their aggregations have been measured and examined in order to understand *how* people negotiate constraints to their leisure.

The relationship between experiencing leisure constraints and participation: The data confirmed an important role of constraints in leisure experience, indicating that the vast majority, or close to 70%, of respondents encountered them in some form. Congruent with previous research, time and cost limitations were the most frequently reported types of constraints, followed by other leisure inhibitors, such as lack of skills and social problems, lack of knowledge, and accessibility and isolation. At the same time, analyses at various levels of specificity established that on the whole constrained leisure (i.e. experiencing constraints in general and their relative intensity) was not linked negatively to participation levels. These results were in accord with previous research, including Kay & Jackson's (1991) English study and Shaw et al.'s (1991) study based on Canadian data. However, they contradicted recent findings based on a sample of the Greek population (Alexandris & Carroll, 1997; Carroll & Alexandris, 1997). The divergence in the results may be explained as a possible consequence of the differences in research approaches as well as cultural variations in the studied populations. This points to the necessity of further studying and testing the relationship between leisure constraints and participation in different populations.

There were, however, some variations (in a positive or negative direction) in the emerged predominantly "neutral" association between constraints and participation depending on the types

of activities or leisure constraints. For example, predominantly intrapersonal and interpersonal constraints such as geographical and personal isolation accompanied by experiencing boredom, insecurity, and frustration (the *Accessibility/Isolation* factor-based dimension), lack of knowledge, or lack of social and other skills (the *Knowledge and Skills/Social Factors* dimensions) were associated with lower participation levels compared to a generally more frequently reported type of constraint, such as time limitations. This finding is congruent with Alexandris and Carroll's results suggesting a negative relationship between perception of similar types of constraints (individual/psychological, lack of interest, and lack of knowledge dimensions) and participation. This finding has two implications. First, it supports Crawford et al.'s (1991) and Jackson et al.'s (1993) hierarchical conception of leisure constraints operation, suggesting that intrapersonal constraints might be the most powerful and influential constraints on individuals' decision about leisure participation. Second, it answers the question posed in this thesis: Do more frequently reported ("intensively experienced") constraints also represent the most serious leisure hindrances? In fact, the data revealed lack of a direct link between the frequency and intensity of experienced constraints and their potential leisure effects. Quite the contrary, in general, the least frequently reported constraints of intrapersonal and interpersonal nature were negatively linked to participation, whereas the most frequently mentioned time-related structural hindrances were associated with significantly higher participation levels "despite constraints."

A possible explanation to these results is that constraints such as time shortages are relatively "simple" in nature. It is easy for an individual to identify and report them and hence, to find ways to negotiate through them. In contrast, intrapersonal constraints are often psychological in nature. They are not so easily identifiable, can operate on a subconscious level and thus can be difficult to negotiate. Interpersonal constraints also may be not easily negotiable, because they may involve complex interactions among individuals.

Leisure constraints negotiation and negotiation strategies: The finding that experiencing constraints generally is not directly reflected in the levels of leisure participation indicated that people probably find ways to get around their leisure impediments, or *negotiate* through them. The present study provided a thorough and in-depth investigation of the concept of leisure constraints negotiation by comprehensively measuring components of the negotiation process, empirically classifying negotiation strategies, and exploring their associations with other aspects of leisure (see the next section on integrated results).

Overall, the data amply supported the negotiation thesis (Crawford et al., 1991; Jackson et al., 1993). As mentioned earlier, the majority of the sample (68.6%) described themselves as being constrained in their leisure. Out of these constrained individuals 83.7% (or 57.4% of the whole sample) reported initiating some form of negotiation. The fact that all of the 40 individual negotiation strategies, which were offered to respondents for the assessment, were checked more than once, attests to the proposition that, instead of foregoing participation, people indeed tend to look for various ways to modify their leisure and non-leisure (Jackson et al., 1993; Jackson & Rucks, 1995) in order to be able to participate.

Classification of the specific negotiation strategies into factor-based dimensions made it possible to take a deeper look into the nature of the negotiation process by uncovering its underlying concepts. This offered new insights into the decision-making associated with constrained leisure. Overall, six dimensions reflecting different facets of negotiation process emerged. A broad variety of strategies comprising the *Flexibility/Dedication* dimension were used by the vast majority (over 95%) of respondents (based on the frequencies calculated for binary variables created for each dimension). Taken together they reflected commitment to leisure, resulting in flexible and creative approaches to constraints negotiation. A broad array of time-tackling strategies (time-related constraints were the most frequently reported) occurred in a combination with psychological, "cognitive" adjustments, such as trying to be positive, more assured, and staying flexible and adaptable, as well as the attempts of improving physical abilities and skills. The following dimension *Utilizing alternative resources and modifying participation* (83.5%) is comparable to the *Flexibility/Dedication* dimension in terms of complexity of the underlying negotiation concept, and comprised various strategies directed at modifying leisure activities and finding alternative ways of participation. The strategies composing the *Taking it easy*, *Modifying finances*, and *Developing family strategies* dimensions were adopted by about 50% of respondents, while the least frequently used were strategies of the dimension *Adjusting to externalities* (34.1%). The latter dimension reflected adaptation to an array of unfavourable external conditions, such as lack of transportation or costly and crowded facilities.

To summarize, the findings outlined above provided ample empirical support for the central negotiation proposition: "Participation is dependent not on the absence of constraints (although this may be true for some people) but on negotiation through them. Such negotiation may modify rather than foreclose participation" (Jackson et al., 1993, p. 4). These findings were the "prelude" to a further in-depth investigation of experiencing leisure constraints and the constraints negotiation

process attempting to integrate constraint and negotiation variables with other aspects of leisure. The associations uncovered as the result contribute to more in-depth understanding of leisure constraints operation and leisure decision making. They are discussed in the next section.

Contribution to Integrating Various Aspects of Leisure

As noted earlier, it is difficult to clearly subdivide the results of this study into contributions to the "specific fields" of leisure research and to integrated knowledge. The traditional partition of leisure research into segments, such as leisure motivation, satisfaction, leisure constraints and so on, is by itself quite an artificial construct. Its use has been favoured, no doubt, by the complexity of the phenomenon of leisure and leisure behaviour and by the historical evolution of leisure research. This section concentrates on "integrating" aspects of the study in order to highlight the features that distinguish it from previous research.

The study contributed to integrated knowledge about leisure by casting light on several relationships including: (1) connections among environmental attitudes, leisure experience, and participation; (2) the link between leisure constraints, anticipated leisure benefits and other motivational factors; (3) relationships between constituents of the constraints negotiation process (initiation of and perceived success in negotiation and adopted negotiation strategies) and other aspects of leisure, such as leisure constraints, motivations, and participation.

Connections among environmental attitudes, leisure experience, and participation

The exploratory analysis of the links between environmental attitudes and aspects of leisure other than recreation participation, namely, leisure experience, is a novel line of research initiated in this study. It resulted in a major finding that environmental attitudes are significantly associated with various facets of *leisure experience*, such as a general value placed on leisure and the overall strength of anticipated benefits (i.e., "optimistic" versus "pessimistic" perception of potential leisure gains), as well as with different types of anticipated leisure benefits. Furthermore, some of the emerged associations were stronger than the relationship between environmental attitudes and overt behavioural expression of leisure, such as recreation participation. Therefore, examination of the links between environmental attitudes and various aspects of the leisure experience may prove to be a productive avenue for future research, aimed at explaining leisure behaviour.

In overall terms the findings and their interpretations can be reduced to four.

(1) There was a consistent positive link between general measures of leisure motivation (the overall value placed on leisure and overall strength of anticipated benefits) and the ecocentric orientation. The data did not offer a direct explanation of this finding. However, based on other results, which emerged from this and previous research, it has been proposed that the intensity of leisure participation may have a "mediating effect" on the association. First, this study established a strong positive link between the strength of leisure motivations and overall intensity of leisure participation. The latter, in turn, has been found to be positively associated with environmental concern (Bikales & Manning, 1990). This can explain a positive relationship between pro-environmental attitudes and the overall strength of leisure motivations. Indeed, it is reasonable to suggest that active leisure participants, who also tend to be distinguished by stronger leisure motivations, may develop stronger pro-environmental attitudes than their more passive counterparts. Active recreation involvement presumes exposure to more (positive and negative) environmental situations. This "first-hand" exposure coupled with, presumably, a relatively proactive life disposition, may contribute to the development of a pro-environmental stance.

(2) At the same time, not all types of environmental attitudes were equally associated with leisure motivations. Only two out of five attitudinal dimensions (*Dominance Over Nature* and *Harmony With Nature*) exhibited a positive connection with motivational variables. This finding complemented Jackson's (1986) conclusion that the same type of general "philosophical" attitude toward the relationship between mankind and nature differentiated best between pursuers of different leisure activities, compared to more specific concerns regarding negative consequences of economic growth and technology, or limits to the biosphere. This study further extended these inferences to the sphere of leisure experience, suggesting that certain types of environmental attitudes may be especially influential in and relevant to different aspects of leisure.

(3) An important finding resulting from embedding environmental attitudes in a broader conceptual context than has been done before was a discovery of a relationship between the environmental orientation and character of anticipated leisure benefits. Specifically, as expected, the ecocentric disposition was positively linked to expecting privacy and enjoyment from nature (i.e., being a "private naturalist"). At the same time, the technocentric stance was associated with belonging to the cluster of "adventurous socialites," who expected benefits such as risk, challenge, or social encounters. While the first association was easy to explain, the second one required an additional interpretation. Based on the theory of human values (Rokeach, 1973; Schwartz, 1992), it

has been proposed that the emerged associations may be a reflection of more general constructs, such as different value systems.

Technocentric attitudes toward the environment can be classified as a display of values directed at "self enhancement" or "egoistic values," whereas ecocentric attitudes can be a reflection of the "universalism/biospheric" values, which belong to the opposite, "self-transcendence," group of values that are related to a concern for the welfare of others (Karp, 1996; Schwartz, 1992; Stern et al., 1995). Values have also a strong motivational component. Anticipated leisure benefits including testing oneself in risky situations, testing skills, competing and getting excitement (the *Adventurous Socialites* cluster) come close to the values, such as "an exciting life," "being daring," "being capable," and "enjoying life." These values express self-enhancement and self-interest, which are the same general group of values that may underlie technocentric attitudes toward the environment. Therefore, the possibility of rooting in the same, "self-enhancing," group of values may explain the relationship between being technocentric and expecting leisure benefits characteristic to the "adventurous socialites."

(4) The foregoing finding is instrumental in offering new insights into the link between environmental attitudes and leisure participation and in contributing to answering the central question posed in Chapter 6: *Why* the relationship between environmental attitudes and leisure participation is usually not strong, and what are the "external" factors that may affect this link?

First, while more frequent participation of the ecocentric respondents in appreciative leisure is easily explicable by the finding that the majority of them anticipated nature-related benefits, the benefits preferred by the majority of technocentrics (such as risk, challenge, skill testing, and socializing) could be associated with a broad range of activities, including environmentally appreciative pursuits. (Many leisure activities, such as river rafting, diving, windsurfing, and so on, may combine "environmental friendliness" with challenge and socializing). Therefore, attaining leisure benefits characteristic of technocentric individuals is not necessarily linked to only consumptive and mechanized pursuits. This may explain a generally weak association between environmental attitudes and the character of outdoor recreation participation, especially for consumptive and motorized recreation, which is often found to be unrelated to (technocentric) environmental attitudes (Tarrant & Green, 1999).

In order to account for different facets and manifestations of the complex relationship between environmental attitudes and leisure participation, it has been presented as a "process model" (Chapter 6, Figures 6.9a and 6.9b). The model was conceived as an initial step in accounting

theoretically for the host of "external" factors that can affect this relationship and eventually can be extended beyond environmental attitudes to other attitudes and values. The model proposes that anticipated leisure benefits (which can depend on tastes and a type of personality) may not necessarily act in accord with environmental (and other) values and attitudes and may, thereby, modify the link between attitudes and participation. Given that anticipated leisure rewards are associated with the freedom of choice and the autonomy inherent in leisure, they apparently are not easily compromisable. In order to behave according to their pro-environmental attitudes, some people supposedly should go through a complicated *negotiation process* of balancing a dissonance between the desired leisure rewards (an "indulging" factor) and "permissible" leisure options based on their convictions (a "controlling" factor) (Figure 6.9a). Presumably, quite often the compromise may not be either reached or even attempted. For example, it is possible that people are not willing to give up desired leisure pursuits for more appreciative recreation, or some leisure participants may simply be unaware of negative environmental effects of their activities. In these cases no correspondence between environmental attitudes and leisure behaviour would be observed.

Leisure constraints of intrapersonal, interpersonal, and structural nature (Crawford et al., 1991) are additional important "external factors" that can modify the association between environmental attitudes and participation firstly by affecting preference, and secondly, by interfering between preference and participation (Figure 6.9b).

More specifically, the model describes the leisure decision making process in the following way. Environmental attitudes are antecedent factors that may influence anticipated leisure benefits. In this case there might be little or no dissonance between these variables, and the association between environmental attitudes and leisure preferences and participation would become more straightforward (sometimes the "balancing" is not needed). For example, ecocentric attitudes may induce anticipation of benefits typical of the "private naturalists" (Table 6.6). This, in turn, may contribute to pursuing appreciative leisure. Holding technocentric or neutral attitudes also should not involve a perceived dissonance with leisure choices. In this case virtually any participation style may emerge depending on expected benefits, preferences and effects of leisure constraints.

In contrast, if environmental attitudes are at variance with anticipated benefits, the process of leisure preferences formation may involve balancing of this discord. In fact, environmental convictions may act in this case as a restrictive factor or as a variety of intrapersonal constraints, which interfere with the preference formation. (The latter may also be affected by other, intrapersonal, leisure impediments unrelated to attitudes). Constraints of a different, structural and

interpersonal, nature may also interfere between already formed preference and participation. All these leisure inhibitors, if they are present, should be confronted and negotiated at each particular level in order for leisure participation to occur. Both preferences and participation may be transformed as a result of encountering constraints. These transformations may further affect environmental attitudes-leisure participation correspondence. The resultant participation styles may, in turn, affect anticipated benefits as well as attitudes (Figure 6.9b). These feedback loops make the model not only a process, but also a "cyclical" one; its components may interact with each other in different ways and change each other. Based partly on empirical findings and partly on theoretical reasoning, the process model supports the last proposition put forward in Chapter 6, which states that the link between environmental attitudes and participation may be affected by "external agents," including anticipated benefits of leisure.

In summary, the findings discussed here uncover the relationship between environmental attitudes and leisure experiences and provide new insights into the ways environmental attitudes fit in the process of leisure decision making. The results also generated new questions that can constitute a basis for future research. For example, the emerged positive link between the ecocentric attitudes and overall strength of leisure motivations requires additional investigation and explanation. Also, a value-based interpretation of the association between environmental attitudes and anticipated leisure benefits proposed in this study needs empirical substantiation. Finally, it would be useful to explore how other types of attitudes and values may affect leisure choices and decision making.

The link between leisure constraints, anticipated benefits, and other motivational factors

Examination of the links between leisure constraints and motivations in this study empirically supported existing theoretical views on leisure constraints (Crawford et al., 1991; Jackson et al., 1993), and resulted in new empirical and theoretical insights uncovering peculiarities of the constraints-motivation link (detecting the specific ways in which perception of constraints interferes with leisure motivations). As previously discussed, Jackson et al. (1993) put forward a general proposition that motivational factors might affect the individuals' decision making process and might interact with the response to constraints. Carroll and Alexandris (1997) discovered in an empirical study that the strength of motivation for sport participation was significantly and negatively related to the perception of constraints as a whole and to the individual constraint dimensions comprised primarily of intrapersonal, interpersonal, and time-related constraints. This

means that either more motivated individuals were less likely to perceive high levels of constraints, or, alternatively, those who perceived the highest level of constraints became less motivated. These authors also suggested that the relationship between motivation and perceived constraints is likely dynamic and "each is influenced by the other" (p. 295). While their study focused on the effects of strength of motivation on the perception of constraints, they proposed that it would be worth "turning this idea on its head" and investigating the effect of constraints on motivation for participation. According to Carroll and Alexandris, the perception of the strength or importance of constraints may well be a demotivating source, which then becomes a blocking device as in the case of psychological interpersonal constraints (Iso-Ahola & Mannell, 1985).

The present study takes an approach congruent with Carroll and Alexandris's suggestions for future research by looking into how different ways of encountering constraints (their mere experience, relative intensity, and types) are associated with different expressions of leisure motivation. The major outcomes of this investigation may be described as follows.

(1) The data revealed that the presence of leisure constraints generally showed no negative associations with all considered aspects of leisure motivation. The same type of results emerged, in contrast with the findings of Carroll and Alexandris, for the link between the relative intensity of constraints and different types of leisure motivation. The only exception was a weak negative association between the intensity of constraints experienced and perceived importance of leisure. Moreover, this study discovered that at a general level and on some individual occasions the link between constraints and various types of motivation was positive. Variations in findings among the two studies can be attributed to different measures of leisure motivations and distinctions in the studied populations (Carroll and Alexandris studied Greek population, which was confined to sport participants; the present study is Canadian and focuses on a more "generic" populace in terms of leisure participation).

The conclusion of the current study that constraints do not necessarily operate as a "demotivating force" or "suppressors" of leisure motivations is important as a theoretical explanation of the lack of negative association between constraints and participation discovered by other researchers and confirmed in this study. This explanation can be formulated into the following extended proposition: Encountering leisure constraints does not necessarily negatively interfere with participation, because motivation for such participation is not necessarily subdued as a result of constraints. Since motivation for participation is not lost, people tend to seek and adopt different strategies to negotiate through constraints, in order to go on with participation.

The occasional positive association between perceived constraints and leisure motivation can also be explained on the basis of this proposition. The desire to negotiate through constraints in order to participate presumes elevated levels of motivation. This allows us to assume that in some cases encountering leisure impediments can make people even more motivated to "meet the challenge" and participate "despite constraints" than the absence of constraints. At the same time, a weak, albeit statistically significant, negative link between the overall strength of constraints experienced and perceived importance of leisure (Table 7.6) warns us against an oversimplified representation of the constraints-motivation link. It suggests that under certain circumstances constraints may act as demotivating factors. The extent of such negative influence may depend on the type of affected leisure motivation. In this particular case, negative interference of constraints with the overall value placed on leisure may result in a major negative effect, or "shutting down" the desire to participate in leisure activities prior to the formation of preferences, which are antecedent to an actual leisure participation.

(2) The results of specific analyses looking at the relationship between leisure motivations and individual constraints and their dimensions, revealed (congruent with Carroll and Alexandris, 1997) that some intrapersonal and interpersonal constraints (and the factor-based dimension made up of this type of constraint) had a modest, but statistically significant, negative association with the perceived importance of leisure (a value placed on leisure). First, this finding renders additional support to Crawford et al.'s (1991) proposition that intrapersonal constraints can be the most powerful leisure impediments, followed by interpersonal constraints. Second, it allows a further development of the hierarchical model of constraints by suggesting that leisure motivations and their interaction with constraints may also exhibit a hierarchical pattern (Figure 7.16). Encountering constraints on the intrapersonal or/and interpersonal levels can negatively interfere with the perceived importance of leisure and, as a result, deter people from developing leisure preferences. However, once this initial level of constraints is surmounted or absent, leisure preferences are formed, which, in turn, results in anticipation of some leisure benefits. The lack of a negative association between this last type of leisure motivation and leisure constraints may explain the finding that the latter were not negatively linked with leisure participation.

(3) It also can be inferred from the data that constraints may affect leisure motivations in a subtle and intricate way by influencing their *character*. For instance, anticipating benefits related to getting privacy was associated with the group of constraints related to isolation, lack of knowledge, and personal inhibitors. At the same time, lacking social skills was more characteristic

of the "private naturalists" compared to other clusters of anticipated benefits (Figures 7.13 through 7.15). These findings suggest that constraints, probably by affecting leisure preferences, may also affect anticipated leisure benefits. In other words, anticipated leisure benefits may be indicative of experienced leisure constraints. For example, people may become "private naturalists" and prefer participation in gardening, nature walks and study, or other "non-social" pursuits, due to the fact that they lack social skills, which prevents them from experiencing and expecting corresponding leisure rewards.

This pattern may be an example of coping with leisure constraints in order to participate by modification of leisure preferences and anticipated benefits. While similar to leisure constraints negotiation, which also may involve various modifications of leisure, this type of responding to constraints should be classified as getting around or avoiding them in a more passive manner than confronting them and negotiating through them.

Finally, the data makes it possible for us to assume that all types of constraints may interact with leisure benefits, and hence with leisure preferences, including structural constraints. For example, expecting "slowing down" as a result of leisure was associated with reporting time-related constraints (Figure 7.13).

The second and third sets of ideas may be summarized in the following additional propositions:

- (a) The formation of leisure motivations and their interaction with leisure constraints may exhibit a hierarchical pattern (Figure 7.16). The overall aptitude for leisure (its perceived importance) and leisure preferences may be affected and modified by (intrapersonal or interpersonal) constraints prior to anticipation of specific leisure benefits.
- (b) Leisure benefits normally are not affected negatively by constraints (in terms of their overall strength), but their character, and hence the character of subsequent leisure participation, may be influenced and modified as a result of the perception of constraints.
- (c) Besides direct constraints negotiation, coping with leisure inhibitors may involve more passive ways of getting around them (consciously or subconsciously) by modifying leisure preferences and anticipated benefits of leisure. This line of behaviour may be termed passive or indirect negotiation.
- (d) It is possible that all types of constraints (including intrapersonal, interpersonal and structural leisure inhibitors) may influence leisure preferences and anticipated benefits.

The examination of the relationship between leisure constraints and motivations outlined in this study resulted in new insights into the leisure constraints operation and also assisted in clarification

and explanation of theoretical propositions and empirical findings offered by previous research. However, further empirical investigation of this relationship is needed based on different populations and measurements of constraints and motivations in order to corroborate or refute these inferences. Also, in the light of recent developments in the field of leisure constraints negotiation, it is not possible any more to study constraints and their associations with other aspects of leisure without taking into account the negotiation process.

The particulars of the constraints negotiation process: an integrated analysis

Negotiation effort, success, and other aspects of leisure: The analysis of the constraints negotiation process is outlined in Chapter 8. Overall, the results ensuing from examining various components of the constraints negotiation process and other aspects of leisure (leisure constraints, motivations, and participation) can be reduced to the following major findings:

(1) Initiation of the negotiation process generally was not related to the overall intensity of experienced constraints; however perceived success in constraints negotiation was negatively linked to the strength of experienced constraints.

(2) Effort and ability to negotiate constraints ("negotiation potential") was generally associated with unchanged intensity of leisure participation. At the same time, on some specific occasions attempts to negotiate constraints and success in this endeavour was associated with greater participation levels than "non-negotiated" leisure. Together with the finding that perception of constraints generally was not negatively associated with participation levels, these results offer empirical support for Crawford et al.'s (1991) and Jackson et al.'s (1993) central proposition that "participation is dependent not on the absence of constraints but on negotiation through them" (Jackson et al., 1993, p. 4).

In addition, the study suggests that the relationships (their significance and direction) were dependent on the nature of experienced constraints or leisure activities. For instance, perception of intrapersonal and interpersonal constraints (such as "No energy," "Physical abilities," "Social skills," and "No skills") was generally linked negatively to the attempts to overcome constraints, and lack of energy was also associated negatively with success in this endeavour. This finding adds empirical evidence to Crawford et al.'s proposition that intrapersonal constraints are probably the most powerful leisure deterrents, followed by interpersonal and structural constraints. At the same time, the most frequently reported time-related constraints displayed a quite strong association with the negotiation drive. Furthermore, this type of structural constraint was associated either with

unchanged or even somewhat higher participation frequencies (Chapter 7) compared to participation levels associated with unconstrained leisure or with other leisure inhibitors. This finding contradicts the results of Carroll and Alexandris (1997), who found the time dimension of constraints to be one of the best predictors for distinguishing between participants and non-participants in sport recreation. At the same time, the findings of this thesis are congruent with Shaw et al.'s (1991) Canadian data, which demonstrated that people who indicated time-related constraints enjoyed significantly higher participation levels in physical recreation activities compared to those who did not perceive time shortages.

It also has been discovered that negotiation attempts and their relatively more successful outcomes were more prevalent among individuals involved in physically and socially intense leisure compared to people involved in intellectual endeavours, hobbies, or home-based recreation.

(3) An important novel finding resulting from the present study was the discovery that impetus to and success in constraints negotiation was generally positively and significantly associated with motivations of getting involved in leisure, including the perceived importance of leisure and the overall magnitude and nature of anticipated benefits. These results provide the first empirical evidence supporting Jackson et al.'s (1993) assumption about a balance between motivations and constraints in a negotiation process (the "balance proposition").

While general analyses revealed a positive role of leisure motivation in the constraints negotiation process, more specific data examination unveiled more variations. The latter included variations depending on the character of anticipated benefits. For example, the vast majority (more than 90%) of the respondents belonging to the benefit clusters of *Adventurous Socialites* and *Appreciative Optimists* attempted constraints negotiation, whereas the proportion of "attempters" was somewhat lower among the *Private Naturalists* (77%). More specifically, anticipation of social benefits (*Family/Friends* factor-based dimension) and benefits related to taking risk and testing one's skills (*Risk/Skill Test* dimension) were consistently and positively associated with the components of negotiation process (attempts of and success in constraints negotiation).

Taken together these results make it possible to propose that different types of benefits may play a different role in the negotiation process and anticipation of some types of benefits may positively affect constraints negotiation. Furthermore, the finding that social anticipated benefits have a positive link with the constraints negotiation process confirms an important inference of previous studies that social factors play a fundamental role in shaping leisure behaviour (Samdahl & Jekubovich, 1997).

Negotiation process and negotiation strategies: The investigation of different dimensions of negotiation strategies in relation to different leisure-related variables resulted in the following major outcomes. First, it has been determined that none of the five types of strategies¹ proved to be especially "successful" in overcoming constraints compared to any other. In other words, adoption of a particular type of negotiation strategy was not found to be significantly associated with success in negotiation or with a more intense overall participation.

Second, the general strength of experienced constraints showed some relation to the choice of negotiation strategies. Highly constrained individuals more frequently resorted to developing family-related strategies (to save some time for leisure) or to modifying finances to cover the costs of leisure participation. These results are not surprising, considering that time and costs emerged as the most frequently encountered constraints.

Third, the choice of negotiation strategies was not associated with the type of anticipated benefits or leisure activities, but were related to leisure constraints experienced. The data suggest that it is not so much the intensity of perceived constraints, but rather their *nature* that determined preferences for negotiation tools. For example, developing family-related strategies was more characteristic of time restricted respondents. At the same time, adjusting to externalities and taking it easy type of strategies were more frequently adopted by the members of the *Isolation/Knowledge/Personal Reasons* cluster of constraints, who tried to overcome social and geographic isolation, modify their social environment, and so on. The latter group of respondents, together with the cost-constrained individuals, also resorted more frequently to modifying finances.

Variations in negotiation variables according to demographic characteristics: Since negotiation variables are still largely underexplored compared to leisure constraints, their analysis across demographic characteristics may cast additional light on the leisure decision making process. Overall, there were no significant gender-based variations in any of the analyzed negotiation variables. However, some variations were observed according to age and income.

The general negotiation drive was lower among older respondents (lower proportions of people 46 and older attempted to overcome constraints compared to their younger counterparts). This finding can be explained by the decline of the intensity of leisure motivations with the advancing age (Chapter 5).

¹ One of the six initially derived factor-based dimensions of negotiation strategies (*Flexibility/Dedication*) was omitted from the analyses because of the lack of variance; almost everyone of the "negotiators" used it to come around his/her constraints

As far as the choice of negotiation strategies is concerned, as expected, a significantly lower percentage of respondents from the oldest age group (56 or older) adopted different family-related strategies to overcome their constraints. The same type of relationship emerged for the *Modifying Finances* dimension of negotiation strategies. A much smaller proportion of the oldest respondents resorted to this type of negotiation, compared to those who were 55 or younger.

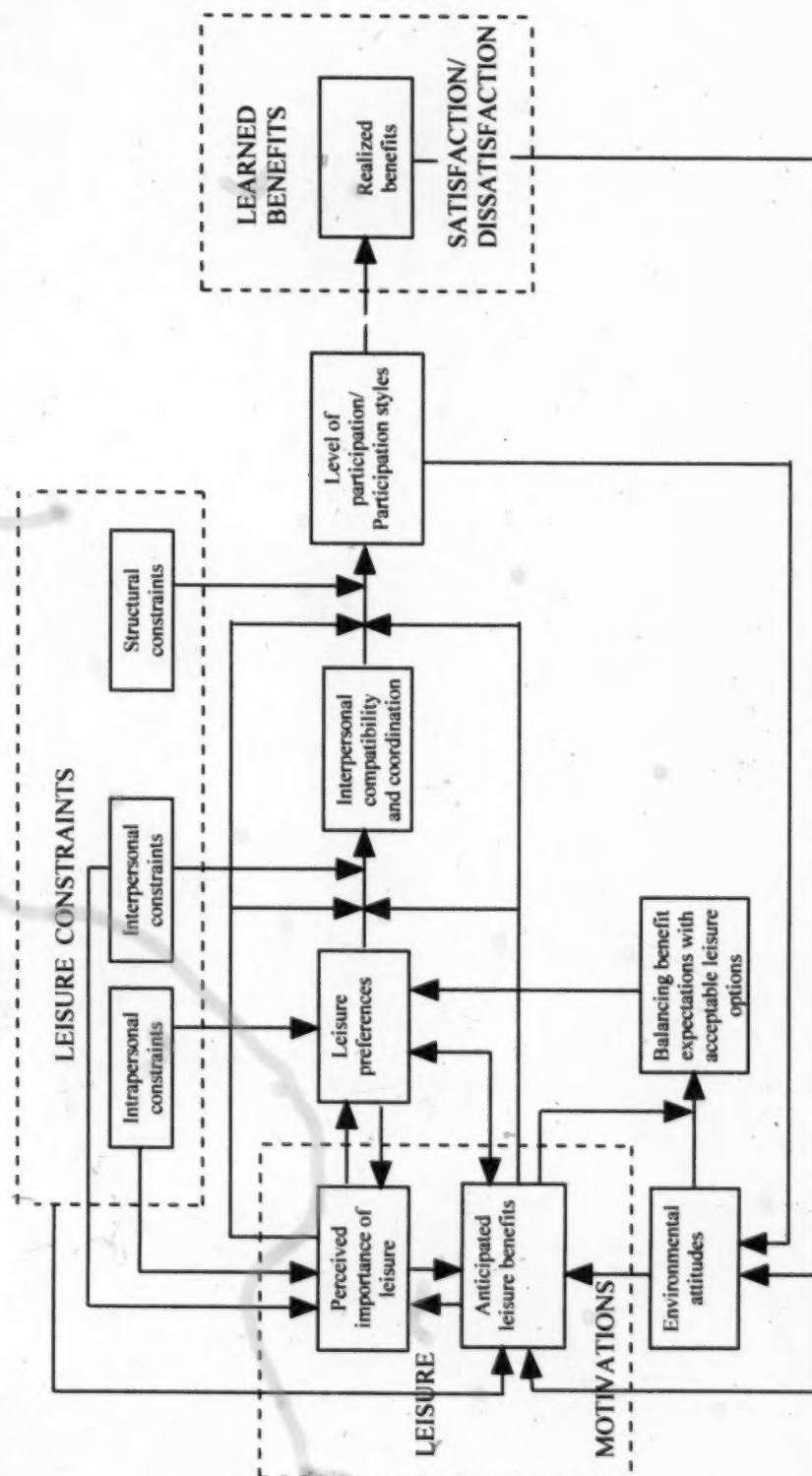
Income-based variations in negotiation variables were confined to the negotiation strategy dimensions. While adjusting to externalities, taking it easy, and modifying finances were more characteristic (with some variations) of poorer respondents, the rest of the strategy types (family-related strategies and utilizing alternative resources/modifying participation) showed no income-based differences.

Overall, the data revealed the highly complex nature of the process of leisure constraints negotiation, which may be influenced by many factors related to leisure experience and participation as well as by personal characteristics of individuals.

The Process of Leisure Decision-Making (A General Overview)

As a final conclusion to the study, Figure 9.1 represents an attempt to schematically outline an integrated picture of the leisure decision-making process. It is based on the empirical findings that emerged as a result of this research as well as on theoretical suggestions about possible links among its components. Although the model does not reflect all particulars of the decision-making process (which is practically impossible), it gives the idea about the major stages of this process based on the available knowledge, as well as their links to each other.

Environmental attitudes and other values and attitudes reflect the personality and deep convictions and beliefs of an individual. They, as well as anticipated leisure benefits and other motivation-related factors, are considered to be the antecedents in the leisure decision-making process. Along with anticipated leisure benefits and perceived importance of leisure, an array of other motivational variables can be taken into consideration in order to better appreciate leisure choices. In theory, environmental (and other) attitudes may affect leisure preferences directly. However, the present study has proposed the possibility of intervention of anticipated leisure benefits between attitudes and leisure preferences. Leisure benefits may reflect tastes and personality and not necessarily be in accord with attitudes. For example, people who are not "environmentally friendly" in terms of their attitudes may anticipate leisure benefits that are typical for environmentally appreciative recreation and participate in appreciative activities. On the other



The process of leisure decision making.

Figure 9.1

hand, there is a possibility that "environmentally friendly" individuals may anticipate leisure benefits that are compatible with consumptive or energy consuming recreation. In this case the balancing of acceptable leisure options seen from the environmental point of view, with desirable leisure benefits might be necessary. This balancing or negotiation may affect leisure preferences and make them more "environmentally friendly." Alternatively, there is a possibility that the dissonance is not overcome and there is no attitude-leisure preference correspondence.

Leisure preferences also may be subjected to the effect of leisure constraints, most probably of an intrapersonal character. This study uncovered a possible way in which these (and also interpersonal) constraints may operate, through negatively affecting motivations, namely, the perceived importance of leisure. This may result in a lack of interest which, in turn, can negatively affect leisure preferences. When leisure preferences are shaped (if intrapersonal constraints are absent or overcome), interpersonal constraints may come into play that can interfere with interpersonal compatibility and coordination (for example, lack of partners may foreclose participation even if preferences for an activity are in place). The last stage of leisure constraints in the negotiation process are structural constraints, such as time, money, problems with facilities, and so on. According to Crawford et al. (1991), these constraints are the least "proximal," and hence, relatively easy to overcome. Their successful surmounting results in leisure participation.

This study concluded that leisure constraints normally do not interfere negatively with leisure benefits (affect their overall strength), but they may affect their character, as well as the character of leisure preferences and subsequent participation (see also Figure 7.16). The resulting leisure experience and behaviour modifications that get around leisure inhibitors may represent one of the ways to cope with the latter.

It has been demonstrated in this study that, apart from possible negative effects of intrapersonal or interpersonal constraints, or other specific occasions, constraints generally do not negatively interfere with motivations, and further that constraints negotiation is positively associated with leisure motivations. This important aspect of the constraints negotiation process is shown on the diagram, which demonstrates that anticipated leisure benefits and perceived importance of leisure may affect different stages of the constraints negotiation process.

Leisure participation may result in "realized" or learned benefits, which can either almost coincide with, or be different from anticipated leisure benefits, and also in satisfactory or dissatisfactory leisure experiences. These factors, in turn, can affect leisure motivations, including anticipated benefits. This last portion of the model was not considered in the present study, but it

deserves to be included in further research targeting integration of different aspects of leisure.

Apart from the discussed links, the model accounts for the possibility of feedback connections, such as the influence of leisure participation and resulting experiences on environmental attitudes, or possible "reverse" effect of leisure preferences on perceived importance of leisure and anticipated benefits. It is important to keep in mind that, depending on a particular situation, some components and links of the model may be absent and not relevant. The great variety of possible combinations of the ways leisure decision making process may be carried out is indicative of different leisure styles, or the ways to participate in and experience leisure.

Future Research and Practical Implications

In the process of conducting this study, it became clear that attempts to integrate different aspects of leisure and connect otherwise fragmented individual areas of knowledge in this field not only contributed to the development of a more complex and complete perspective of leisure behaviour and experience, but also generated new theoretical insights and assisted in clarifying some unanswered questions. Therefore, integrated studies have a great potential in enhancing our understanding of some aspects of leisure that can not be fully explained and understood within specialized areas of research alone.

At the same time, studies like this represent only an initial step in integrating knowledge in the field of leisure, and some additional major areas need to be included in future research. For example, an extensive field of knowledge related to leisure satisfaction (Figure 9.1) needs to be integrated with other aspects of leisure. The areas to be looked at include the relationship between benefits realized in the process of leisure and satisfaction or dissatisfaction resulting from leisure with anticipated benefits and motivations. Another issue worth investigation is possible interference of different types of leisure constraints with different aspects of leisure satisfaction, and the influence of constraints negotiation on leisure satisfaction. In this connection the following key question needs to be addressed: Does constrained and negotiated leisure bring to a participant the same amount of satisfaction as unrestricted leisure?

At the same time, integration should not be confined to exploring connections among different aspects of leisure. Leisure is only one of many constituents of human behaviour and experience and therefore, it should be considered in a broad theoretical and conceptual context. For example, investigation of environmental attitudes made apparent that much can be done in exploring links of different aspects of leisure (including attitudes, benefits and motivations) to values. Connection to

this "fundamental" aspect of human behaviour and experience may assist in explaining some links between different aspects of leisure. Also, it could be useful to explore attitudinal factors other than environmental attitudes that might be connected with leisure.

Finally, besides broadening knowledge by connecting different facets of leisure, integration is relevant also to specific areas of leisure research, many of which by themselves have a broad and multifaceted structure. For example, an extensive research effort is needed to empirically explore the recently formulated new concept of leisure benefits (Driver & Bruns, 1999). While the present study looked only at one of its components (anticipated leisure benefits), an integrated examination of its other aspects is essential for better appreciation of the concept as a whole. This examination can include looking at connections of intermediate benefits (anticipated and realized or learned) to each other as well as to the higher and more general "end-state benefits."

It also is clear that leisure constraints and the negotiation process need further research, which should include complex analyses of their different behavioural implications. For example, it is useful to compare in one study the effects of different constraints on both frequencies of participation and nonparticipation in order to better understand their interference with participation (Carroll & Alexandris, 1997).

In summary, it should be mentioned that integrative studies may provide ample opportunities for both quantitative and qualitative research, and their combination would be a useful tool to enhance understanding of the leisure decision making. Also, cross-regional and cross-cultural comparative studies can be valuable in enhancing our understanding of how leisure concepts operate under different circumstances and conditions.

It was noted in the Introduction to the thesis that integrated study and understanding of particulars of the leisure decision making process can assist in practical issues, such as avoiding erroneous and superficial decisions in leisure and recreation management. The results of such studies might contribute to the building an efficient, "optimal" leisure delivery system. The following examples illustrate how the research-generated knowledge can be converted into a practical language.

Understanding different aspects of perceived leisure benefits, for instance, would allow practitioners to better comprehend both the prerequisites and outcomes of leisure participation (anticipated and realized benefits). Knowing why people participate and what they expect as a result of leisure engagement would allow managers to focus on the "final product" of their services (i.e., realized leisure benefits) and work towards increased satisfaction, rather than direct their

effort only on the "material means" of leisure service delivery, such as facilities and programs. The analysis of distinctive "benefit characteristics" of different leisure pursuits and the degree of their "substitutability" in terms of attained benefits would be a valuable input in this area.

Previous research literature hypothesized that growing pro-environmental stance of the public would eventually translate into a more environmentally protective behaviour, including "environmentally-friendly" recreation. Jackson, for example, mentioned in 1986 that "changes from the consumer to the conserver society" should result in a switch in recreation behaviour, namely, "in a growing preference for appreciative activities and a decline in mechanized and consumptive activities" (Jackson, 1986, p. 1). Existing studies, however, demonstrate only a modest predictive power of environmental attitudes with regard to leisure behaviour. Nevertheless, promoting environmental protection and quality as an important general, "end of state" leisure benefit (Driver & Bruns, 1999; Sefton & Mummary, 1995) remains an important issue on the recreation management agenda.

The present study suggests that anticipated leisure benefits may be one of the "external factors" affecting the link between environmental attitudes and observable leisure patterns. The practical suggestion following from this finding is to promote leisure benefits that are more "compatible" with "environmentally-friendly" recreation behaviour. By helping people to realize the most close and direct, "intermediate," benefits that result from appreciative leisure, the link between general environmental attitudes and real leisure behaviour would be enhanced and so would be the "end of state" benefits to society, such as environmental conservation.

Previous leisure literature and also the current study empirically supported the hypothesis that people tend to negotiate constraints to their leisure (Crawford et al., 1991; Jackson et al., 1993). This study represents the next step toward further development of the negotiation concept by investigating how people negotiate through constraints and what other factors affect the negotiation process. Such specific studies bring us closer to practical solutions directed at helping people to overcome their leisure impediments and enjoy satisfying leisure experiences. For example, it has been proven that leisure motivation is positively associated with constraints negotiation. Finding ways to motivate people (including helping them realize potential leisure benefits and importance of leisure) is one of the ways of helping them to cope with constraints. An inference of this study that anticipation of some particular types of benefits, such as social benefits, is positively linked with the negotiation process may have important practical implications. Further research investigation is needed to reveal other types of anticipated benefits with similar positive links to

constraints negotiation.

The study observed that some intrapersonal and interpersonal constraints (constraints comprising the *Skills/Social Factors* dimension) are more likely to interfere negatively with leisure motivation (namely, with the perceived importance of leisure) and are also more likely to be the reason for ceasing participation. These findings suggest that one of the ways of getting people more motivated to participate would be concentrating effort on eliminating of this particular type of leisure hindrances. (The concrete measures may include creating more opportunities not only for specialized participants, but for unexperienced individuals with chances to learn new skills and creating friendly and relaxed social atmosphere at recreation facilities).

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Appendix A
Questionnaire

**THE ROLE OF LEISURE AND RECREATION
IN OUR LIVES: NEEDS AND DESIRES
(A SURVEY OF EDMONTONIANS)**

Anna Nadirova
Graduate Studies in Human Geography
Department of Earth and Atmospheric Sciences
University of Alberta
Edmonton, Alberta
T6G 2H4
(492-0363)

To ensure that both males and females participate in our survey, we would ask the adult in your household who will next have a birthday to complete the questionnaire.

THIS FIRST GROUP OF QUESTIONS ASKS ABOUT YOUR LEISURE TIME, THE WAY YOU USUALLY SPEND THIS TIME, AND THE GAINS YOU MAY ENJOY AS THE RESULT OF LEISURE ACTIVITIES.

Q-1 On average, about how often have you, personally, taken part in the following recreation and leisure activities (in season, where applicable) in the last year? (Please circle the appropriate number for *each* type of activity).

	AT LEAST ONCE A WEEK	AT LEAST ONCE A MONTH	LESS THAN ONCE A MONTH	NEVER IN THE LAST YEAR
<i>Primarily Indoor Activities</i>				
Attending a sports event as a spectator	1	2	3	4
Attending educational courses, lectures	1	2	3	4
Billiards	1	2	3	4
Bowling	1	2	3	4
Building & repairing; Shop work	1	2	3	4
Crossword puzzles	1	2	3	4
Dancing	1	2	3	4
Dining out	1	2	3	4
Doing a craft or hobby	1	2	3	4
Going to theatre, concerts, musicals, movies, etc.	1	2	3	4
Home decorating	1	2	3	4
Listening to music	1	2	3	4
Playing bingo, casinos, etc.	1	2	3	4
Playing cards, board games	1	2	3	4
Playing video & electronic games	1	2	3	4
Reading	1	2	3	4
Socializing at clubs, bars	1	2	3	4
Taking part in drama, music (singing or playing), writing, etc.	1	2	3	4
Using Internet for fun	1	2	3	4
Visiting a museum, art gallery	1	2	3	4

	AT LEAST ONCE A WEEK	AT LEAST ONCE A MONTH	LESS THAN ONCE A MONTH	NEVER IN THE LAST YEAR
Visiting with friends, family	1	2	3	4
Volunteer work	1	2	3	4
Watching TV/Video	1	2	3	4
<i>Body building, Fitness</i>				
Aerobics/Gymnastics	1	2	3	4
Jogging/Running	1	2	3	4
Martial arts	1	2	3	4
Weight lifting/Body building	1	2	3	4
<i>Indoor/Outdoor sports</i>				
Archery	1	2	3	4
Badminton	1	2	3	4
Basketball	1	2	3	4
Bicycling	1	2	3	4
Canoeing/Kayaking	1	2	3	4
Cross-country skiing	1	2	3	4
Curling	1	2	3	4
Diving	1	2	3	4
Downhill skiing	1	2	3	4
Football	1	2	3	4
Golf	1	2	3	4
Ice hockey	1	2	3	4
Ice skating (not hockey)	1	2	3	4
Indoor swimming	1	2	3	4
Moto-cross	1	2	3	4
Motor boating	1	2	3	4
Outdoor swimming	1	2	3	4
Racquetball/Squash	1	2	3	4
River rafting	1	2	3	4
Rollerskating	1	2	3	4
Rugby	1	2	3	4
Sailboarding/Windsurfing	1	2	3	4

	<u>AT LEAST ONCE A WEEK</u>	<u>AT LEAST ONCE A MONTH</u>	<u>LESS THAN ONCE A MONTH</u>	<u>NEVER IN THE LAST YEAR</u>
Sailing/Yachting	1	2	3	4
Shooting (trap/skeet/target)	1	2	3	4
Skateboarding	1	2	3	4
Snowmobiling	1	2	3	4
Soccer	1	2	3	4
Softball/Baseball	1	2	3	4
Table tennis	1	2	3	4
Tennis	1	2	3	4
Tobogganing/Sledding	1	2	3	4
Trail biking	1	2	3	4
Volleyball	1	2	3	4
Water skiing	1	2	3	4
<i>Other Types of Outdoor Recreation</i>				
Bird watching	1	2	3	4
Day hiking	1	2	3	4
Driving for pleasure	1	2	3	4
Fishing	1	2	3	4
Gardening	1	2	3	4
Horseback riding/Trail riding	1	2	3	4
Hunting	1	2	3	4
Mountain climbing	1	2	3	4
Nature walks, nature study	1	2	3	4
Orienteering	1	2	3	4
Overnight backpacking	1	2	3	4
Picnicking	1	2	3	4
Tent camping	1	2	3	4
Trailer camping	1	2	3	4
Travelling (domestic, worldwide; cruising, visiting resorts, etc.)	1	2	3	4
Walking for pleasure	1	2	3	4

Q-2 Please list your 3 favourite leisure and recreational activities: *those in which you most enjoy participating* (these activities may not necessarily be the ones in which you participate most frequently).

1ST FAVOURITE _____

2ND FAVOURITE _____

3RD FAVOURITE _____

Q-3 People have many reasons for taking part in leisure activities. How important are *each* of the following reasons to you? (Please, circle *one* number for *each* reason).

	NOT IMPORTANT	SOMEWHAT IMPORTANT	IMPORTANT	VERY IMPORTANT
To escape daily routine (work duties, home chores, etc.)	1	2	3	4
For physical health and exercise	1	2	3	4
To develop new skills and abilities	1	2	3	4
To observe other people	1	2	3	4
To learn about different places	1	2	3	4
To escape crowds and noise	1	2	3	4
To keep busy	1	2	3	4
To teach/Share my skills with others	1	2	3	4
To enjoy nature	1	2	3	4
To be away from my family	1	2	3	4
To seek intellectual stimulation and aesthetic experiences	1	2	3	4
To meet new people	1	2	3	4
To meet people of the opposite sex	1	2	3	4
To slow down	1	2	3	4
To compete with others	1	2	3	4
To get privacy	1	2	3	4
To test myself in risky/challenging situations	1	2	3	4

	<u>NOT</u> <u>IMPORTANT</u>	<u>SOMEWHAT</u> <u>IMPORTANT</u>	<u>IMPORTANT</u>	<u>VERY</u> <u>IMPORTANT</u>
To contribute to my community	1	2	3	4
To have fun	1	2	3	4
To be with people having similar values and interests	1	2	3	4
To learn about nature	1	2	3	4
To relax (mentally/physically)	1	2	3	4
To test my competence/skills	1	2	3	4
To get tranquility/peace	1	2	3	4
To be with my family	1	2	3	4
To be with my friends	1	2	3	4
To learn and explore things	1	2	3	4
To do something different from work/home routine	1	2	3	4
To get social recognition	1	2	3	4
To use my skills and talents	1	2	3	4
To be free to do what I really want	1	2	3	4
To do things at my own pace	1	2	3	4
To seek solitude	1	2	3	4
To seek excitement	1	2	3	4
To meditate	1	2	3	4
To seek physical stimulation	1	2	3	4
To be creative	1	2	3	4
To lead others	1	2	3	4

Q-4 How important to you is having a certain amount of leisure and recreation time?
(Please circle *one* number).

- 1 NOT AT ALL IMPORTANT
- 2 SOMEWHAT IMPORTANT
- 3 IMPORTANT
- 4 VERY IMPORTANT

Q-5 How often do you get to do the things that you want to do in your free time?
(Please circle *one* number).

- 1 NEVER
- 2 SOME OF THE TIME
- 3 MOST OF THE TIME
- 4 ALWAYS

THE NEXT GROUP OF QUESTIONS REFERS TO ANY POSSIBLE CONSTRAINTS (RESTRICTIONS) THAT YOU MIGHT HAVE ON YOUR LEISURE TIME AND ON YOUR FREEDOM TO DO WHAT YOU WANT FOR RECREATION.

Q-6 Do you feel that the amount of your leisure time or the type of recreation activities that you want to do are constrained (restricted or inhibited) in any way?
(Please circle *one* number).

- 1 NO (Skip to question 13)
- 2 YES (Please answer questions 7 through 12)

Q-7 In what ways are your leisure and recreation pursuits constrained? (Please circle *all* the numbers that apply to you.)

- 1 I CANNOT PARTICIPATE AS OFTEN AS I WOULD LIKE
- 2 THERE ARE ACTIVITIES THAT I WOULD LIKE TO START, BUT CANT
- 3 I HAVE STOPPED DOING ACTIVITIES THAT I DID IN THE PAST, EVEN THOUGH I WOULD STILL LIKE TO DO THEM
- 4 I DO NOT ENJOY ACTIVITIES AS MUCH AS I MIGHT OTHERWISE

Q-8 Based on your circumstances, how important are the following factors as constraints on your leisure and recreation? (Please circle *one* number for each.)

	NOT IMPORTANT	SOMEWHAT IMPORTANT	IMPORTANT	VERY IMPORTANT
Admission fees or other charges for facilities and programs	1	2	3	4
I don't know where I can take part in the activity I like	1	2	3	4
It is difficult to find others to participate with	1	2	3	4
Poor choice of facilities/programs (lack of opportunities and choices)	1	2	3	4
Home chores	1	2	3	4

	NOT IMPORTANT	SOMEWHAT IMPORTANT	IMPORTANT	VERY IMPORTANT
The cost (rental or purchase) of equipment, material and supplies	1	2	3	4
Too busy with my work	1	2	3	4
Too busy with my family	1	2	3	4
Recreational facilities and areas are overcrowded	1	2	3	4
I am not at ease in social situations	1	2	3	4
I don't know where I can learn the activity I would like	1	2	3	4
Feel no energy and motivation	1	2	3	4
Recreational facilities are poorly kept or maintained	1	2	3	4
There is no opportunity near my home	1	2	3	4
I don't feel safe or secure	1	2	3	4
The cost of transportation	1	2	3	4
Lack of transportation	1	2	3	4
I do not have physical abilities	1	2	3	4
My skills are not good enough	1	2	3	4
Consider an activity in which I would like to participate to be not entirely appropriate for my age/gender	1	2	3	4
Feel bored	1	2	3	4

Q-9 Do you try to overcome or work around some of the constraints which you checked when answering question 8? (Please circle number).

- 1 NO (Skip to question 13)
- 2 YES (Please answer questions 10 through 12)

Q-10 What types of things do you do to try to overcome constraints on your leisure time and recreation? (Please circle *all* the numbers that apply to you).

- 1 I try to better organize my time.
- 2 I try to plan ahead for things.
- 3 I set aside a specific time for recreation and leisure (e.g., evenings, weekends, etc.)
- 4 I try to schedule my participation at a time when facilities are less crowded.

- 5 I have some equipment at home.
- 6 I try to get friends interested in my favourite recreation activities to participate together.
- 7 I try to find companions specially for certain recreation pursuits.
- 8 I try to motivate my family members to participate with me.
- 9 I do more things close to home.
- 10 I arrange rides with friends.
- 11 I use the bus.
- 12 I actually moved (or am planning to move) to a better location.
- 13 I try to just stay flexible and adaptable.
- 14 I take turns with my spouse taking care of the kids, so that the other can have some free time.
- 15 I/we utilize a babysitter sometimes to make free time.
- 16 I ask my spouse to share the daily chores.
- 17 I try to teach my children to be more responsible and help with things.
- 18 I try to budget my money better.
- 19 I am trying to get/have got additional job to earn more.
- 20 I am trying to get/have got a better (higher paid) job.
- 21 During the time that I work, I work hard so that I can have more free time.
- 22 Sometimes I make my free time and favourite activities a priority.
- 23 I try to motivate myself (to convince myself that recreation participation can be beneficial for me).
- 24 I try to participate only in recreation activities that are very interesting to me.
- 25 I try to socialize more.
- 26 I try to become more relaxed and assured in socializing with others.
- 27 I try to learn new activities.
- 28 I try to train and improve my physical abilities and/or skills.
- 29 I have cut back on intensity of my participation and simply do what I am physically able to do.
- 30 I try to find better (less busy, cheaper, etc.) recreation facilities.

- 31 I try to find recreation pursuits and facilities which seem to be safer (from the standpoint of possible physical injury, social atmosphere, crime, etc.).
- 32 I save money to do certain things.
- 33 I borrow money to do things.
- 34 I have just learned to live within my means.
- 35 I'd rather cut back the frequency of my participation than stop doing a recreation activity that I enjoy.
- 36 I try to use *any* free time available (even short periods of time, such as lunch break) to participate in my favourite activity.
- 37 If obstacles of participating in a preferred activity (cost, facilities, time, skills, security, etc.) seem to be too challenging, I (sometimes) substitute another activity for a preferred one.
- 38 I have learned to participate despite injury or physical/health condition.
- 39 I try to be positive and have fun no matter what amount of free time or types of activities are available.
- 40 I try to become more assured and pursue my favourite recreation activities despite what others might think.

Q-11 Are there any other things that you do to try to overcome constraints on your leisure time and preferred recreation participation? Your comments will be greatly appreciated.

Q-12 How successful are you in overcoming constraints on your leisure and recreation? (Please circle *one* number).

- 1 NOT AT ALL SUCCESSFUL
- 2 SOMEWHAT SUCCESSFUL
- 3 MOSTLY SUCCESSFUL
- 4 TOTALLY SUCCESSFUL

THESE QUESTIONS ASK ABOUT YOUR OPINION OF SOME GENERAL TOPICS, SUCH AS QUALITY OF LIFE AND ENVIRONMENTAL ISSUES.

Q-13 Please read each statement carefully, then circle the number that corresponds most closely to your opinion about the statement. There are no right or wrong answers: we are only interested in your opinion.

	<u>STRONGLY</u> <u>DISAGREE</u>	<u>DISAGREE</u>	<u>NEUTRAL</u>	<u>AGREE</u>	<u>STRONGLY</u> <u>AGREE</u>
In the long run, there are no limits to the extent to which we can raise our standard of living	1	2	3	4	5
The earth is like a spaceship with only limited room and resources	1	2	3	4	5
Plants and animals exist primarily to be used by humans	1	2	3	4	5
There are limits to growth beyond which our industrialized society cannot expand	1	2	3	4	5
We can continue to raise our standard of living through the application of science and technology	1	2	3	4	5
We attach too much importance to economic measures of the level of well-being in our society	1	2	3	4	5
Humans must live in harmony with nature in order to survive	1	2	3	4	5
Economic growth improves the quality of life for all Canadians	1	2	3	4	5
The balance of nature is very delicate and easily upset	1	2	3	4	5
The positive benefits of economic growth far outweigh any consequences	1	2	3	4	5
Humans have the right to modify the environment to suit their needs	1	2	3	4	5
Canadians are going to have to drastically reduce their consumption of material goods and resources (power, gas, water, etc.) over the next few years	1	2	3	4	5
Science and technology often do as much harm as good	1	2	3	4	5

	<u>STRONGLY</u> <u>DISAGREE</u>	<u>DISAGREE</u>	<u>NEUTRAL</u>	<u>AGREE</u>	<u>STRONGLY</u> <u>AGREE</u>
When humans interfere with nature it often produces disastrous consequences	1	2	3	4	5
More emphasis should be placed on teaching children about nature than on teaching them about science and technology	1	2	3	4	5
We cannot keep counting on science and technology to solve mankind's problems	1	2	3	4	5
In general, the Canadian people would be better off if the nation's economy stopped growing	1	2	3	4	5
Mankind was created to rule over the rest of nature	1	2	3	4	5
To maintain a healthy economy, we will have to develop a "steady-state" economy where industrial growth is controlled	1	2	3	4	5
Humans need not adapt to the environment because they can remake it to suit their needs	1	2	3	4	5
Most problems can be solved by applying more and better technology	1	2	3	4	5
We are approaching the limit to the number of people the earth can support	1	2	3	4	5
Mankind is severely abusing the environment	1	2	3	4	5
Rapid economic growth often creates more problems than benefits	1	2	3	4	5

FINALLY, WE WOULD LIKE A FEW FACTS ABOUT YOURSELF. THESE QUESTIONS WILL BE USED FOR CLASSIFICATION PURPOSES ONLY. LIKE THE REST OF THE QUESTIONNAIRE, YOUR ANSWERS WILL BE KEPT COMPLETELY CONFIDENTIAL.

Q-14 Are you male or female? (Please circle number).

1 FEMALE

2 MALE

Q-15 In what year were you born? 19_____

Q-16 Which of the following best describes your household? (Please circle *one* number).

- 1 SINGLE PERSON
- 2 TWO OR MORE UNRELATED SINGLE ADULTS
- 3 TWO OR MORE RELATED ADULTS
- 4 COUPLE WITH NO CHILDREN
- 5 SINGLE PARENT FAMILY
- 6 COUPLE WITH CHILDREN
- 7 OTHER (PLEASE SPECIFY)

Q-17 What is the highest level of education that you have attained? (Please circle *one* number).

- 1 ELEMENTARY SCHOOL
- 2 JUNIOR HIGH SCHOOL
- 3 SENIOR HIGH SCHOOL
- 4 TECHNICAL PROGRAM
- 5 COLLEGE
- 6 UNIVERSITY
- 7 OTHER (PLEASE SPECIFY) _____

Q-18 In which of the following categories does the total annual income of your household fall? (Please circle *one* number).

- 1 LESS THAN \$15,000
- 2 \$15,001 TO \$30,000
- 3 \$30,001 TO \$50,000
- 4 \$50,001 TO \$70,000
- 5 \$70,001 TO \$90,000
- 6 \$90,001 TO \$120,000
- 7 OVER \$120,000

Is there anything else you would like to express about the topics dealt with in this questionnaire? If so, please use this space for that purpose.

Thank you for your help in completing this questionnaire. Your contribution to this project is very much appreciated.

Appendix B
Covering Letter and Reminder Letter

Dear Sir or Madam:

Many people would agree that leisure and recreation activities play an important role in our lives. This University of Alberta study aims to understand the leisure and recreation choices of Edmontonians, what benefits (or gains) people hope to derive from recreation, and what are possible constraints (restrictions) on leisure and recreation participation and enjoyment. Another area of this study is how demographic and social characteristics (age, gender and income) and perception of the quality of life and the natural environment can influence leisure and recreation.

This topic is not only interesting from an academic point of view, but it has also considerable practical value. Leisure and recreation have become a large-scale service enterprise. In order to provide adequate services and be aware of what recreational programs and activities meet people's needs, the municipalities, councillors and private businesses need to know what factors influence people's recreational preferences. The only way to find it out is to ask people.

Your household is one of a small number in which people are being asked to give their opinion on these matters. Therefore, your response is very important to us. Most of the questions in the enclosed questionnaire are easy to answer. Just circle the numbers or words (yes/no), or write a few words. Please spend a few minutes to fill out the questionnaire. Then fold the booklet, put onto a prepaid return envelope and mail it back to us.

Your participation is voluntary and you can be assured of complete confidentiality. The answers you give will be combined with those of other respondents and used only for statistical purposes. Individual responses will be kept confidential. The enclosed return envelope has an identification number for survey administration purposes only. This is so that we may check your number off the list when your questionnaire is returned. Your name will never be placed on the questionnaire.

You may receive a summary of results of this research by writing "copy of results requested" on the back of the return envelope, and printing your name and address below it. I would be most happy to answer any questions you might have. Please write or call. Thank you very much for your assistance.

Sincerely,

Anna Nadirova, Graduate Studies
Tel. 492-0363

Dear Sir or Madam:

About three weeks ago I wrote you seeking your opinion on the factors which influence your recreation preferences and enjoyment. As of today I have not received your completed questionnaire.

I have been undertaken this study because of its academic significance and because of the belief that the diversity of citizen opinions should be taken into account in the formation of the policies for planning and development of recreation facilities and programs.

I am writing you again because each questionnaire is crucial to the success of this study. Your household was chosen through a scientific sampling process in which every household in your neighborhood had an equal chance of being selected. Only about one of every 612 households in Edmonton is being asked to complete this questionnaire. In order for the results of this study to be truly representative it is essential that each household in the sample return their questionnaire.

I would like to emphasize once again that your responses will be treated in the strictest confidence. The answers you give will be combined with those of other respondents and used only for statistical purposes. In fact, the questionnaire forms will be destroyed as soon as I have analyzed the results. To ensure that you remain totally anonymous, please do not identify yourself on the questionnaire.

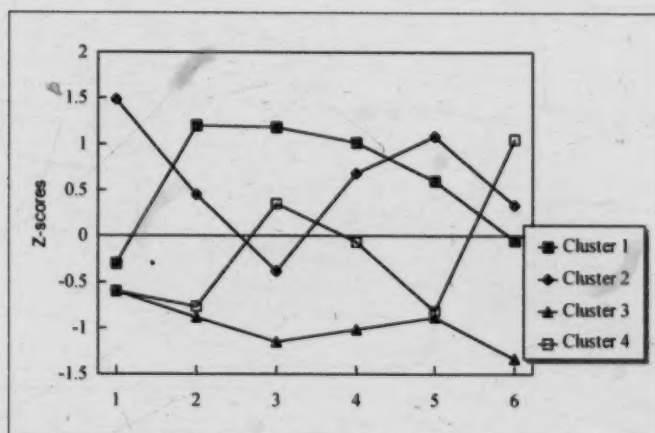
I respectfully ask your help in completing the questionnaire and returning it as soon as you possibly can. In the event that your questionnaire has been misplaced, a replacement is enclosed. Please take the time to complete the questionnaire, then fold it, put into a prepaid return envelope and mail it back to me.

Thank you very much for your time and cooperation.

Sincerely,

Anna Nadirova, Graduate Studies
Tel: 492-0363

Appendix C
"Rejected" Cluster Solutions (Chapter 4)



Factor-Based Dimensions:

- 1 = Sports
- 2 = Appreciative Outdoors
- 3 = "Soft Outdoors"/ Intellectual
- 4 = Consumptive/Mechanized
- 5 = Social Recreation
- 6 = Home-based/Hobbies

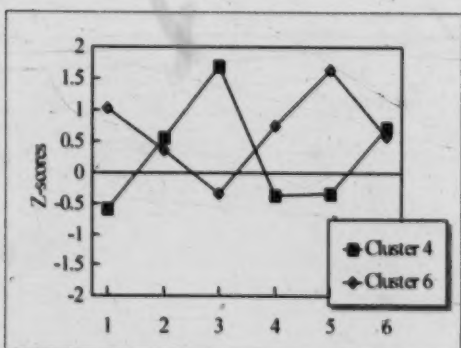
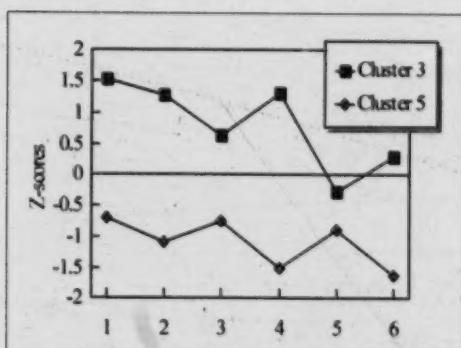
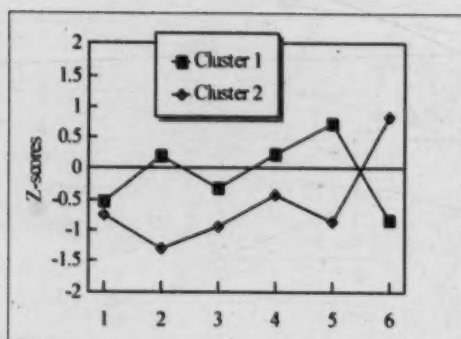
Cluster 1 = 60 cases

Cluster 2 = 21 cases

Cluster 3 = 126 cases

Cluster 4 = 89 cases

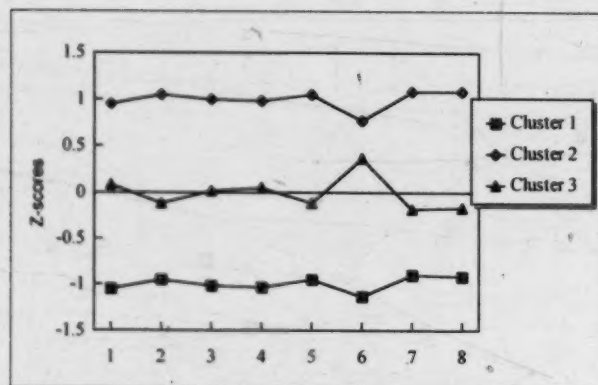
Leisure Activities: 4-Cluster Solution



Factor-Based Dimensions:
 1 = Sports
 2 = Appreciative Outdoors
 3 = "Soft Outdoors"/ Intellectual
 4 = Consumptive/Mechanized
 5 = Social Recreation
 6 = Home-based/Hobbies

Cluster 1 = 48 cases
 Cluster 2 = 75 cases
 Cluster 3 = 15 cases
 Cluster 4 = 65 cases
 Cluster 5 = 78 cases
 Cluster 6 = 15 cases

Leisure Activities: 6-Cluster Solution



Factor-Based Dimensions:

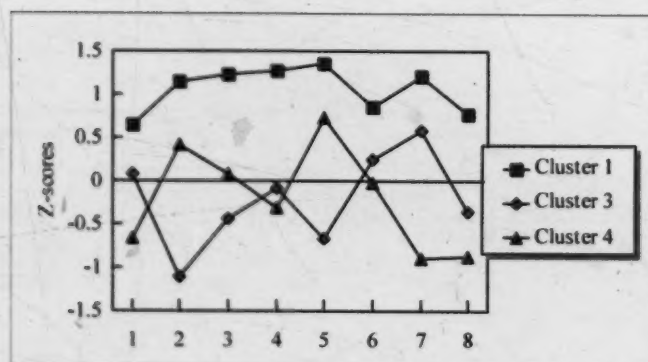
- 1 = Risk/Skill Testing
- 2 = Privacy/Escape
- 3 = Learning
- 4 = Enjoying Family/Friends
- 5 = Enjoying Nature
- 6 = Relaxation
- 7 = Contribution/Leadership
- 8 = Social Gains

Cluster 1 = 73 cases

Cluster 2 = 98 cases

Cluster 3 = 121 cases

Anticipated Leisure Benefits: 3-Cluster Solution



Factor-Based Dimensions:

- 1 = Risk/Skill Testing
- 2 = Privacy/Escape
- 3 = Learning
- 4 = Enjoying Family/Friends
- 5 = Enjoying Nature
- 6 = Relaxation
- 7 = Contribution/Leadership
- 8 = Social Gains

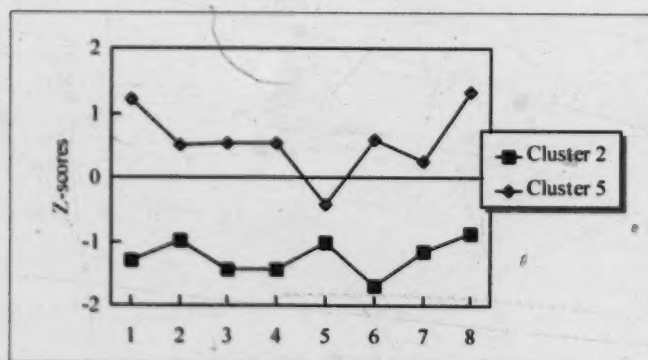
Cluster 1 = 62 cases

Cluster 2 = 57 cases

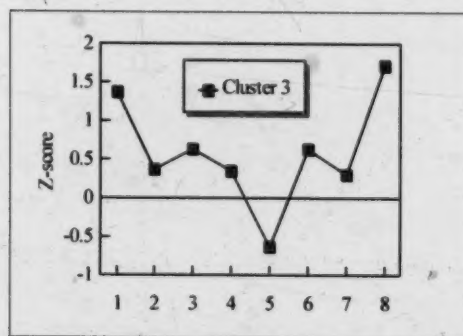
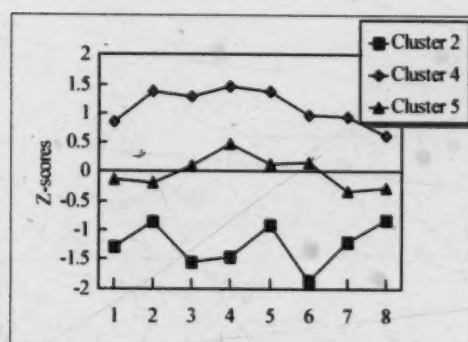
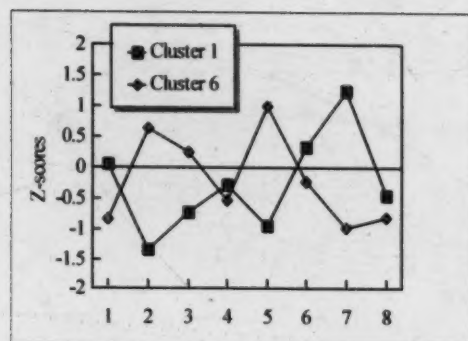
Cluster 3 = 39 cases

Cluster 4 = 83 cases

Cluster 5 = 51 cases



Anticipated Leisure Benefits: 5-Cluster Solution

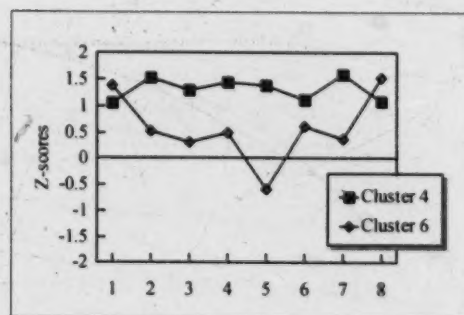
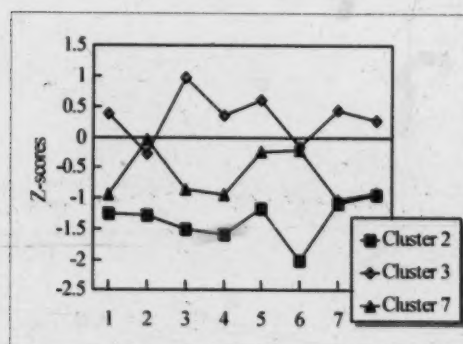
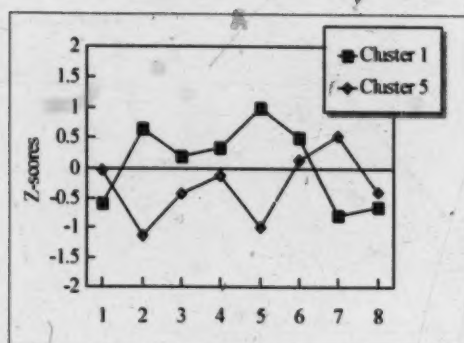


Factor-Based Dimensions:

- 1 = Risk/Skill Testing
- 2 = Privacy/Escapes
- 3 = Learning
- 4 = Enjoying Family/Friends
- 5 = Enjoying Nature
- 6 = Relaxation
- 7 = Contribution/Leadership
- 8 = Social Gains

Cluster 1 = 19 cases
 Cluster 2 = 58 cases
 Cluster 3 = 34 cases
 Cluster 4 = 57 cases
 Cluster 5 = 64 cases
 Cluster 6 = 60 cases

Anticipated Leisure Benefits: 6-Cluster Solution



Factor-Based Dimensions:

- 1 = Risk/Skill Testing
- 2 = Privacy/Escape
- 3 = Learning
- 4 = Enjoying Family/Friends
- 5 = Enjoying Nature
- 6 = Relaxation
- 7 = Contribution/Leadership
- 8 = Social Gains

Cluster 1 = 46 cases

Cluster 2 = 37 cases

Cluster 3 = 43 cases

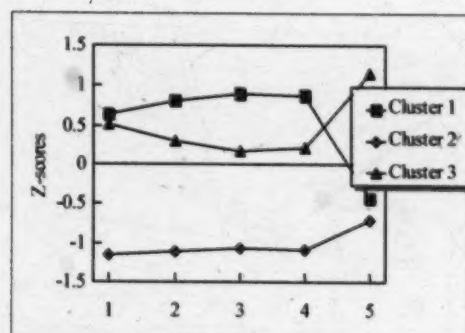
Cluster 4 = 31 cases

Cluster 5 = 36 cases

Cluster 6 = 43 cases

Cluster 7 = 57 cases

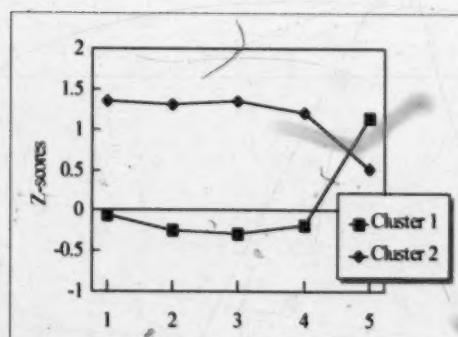
Anticipated Leisure Benefits: 7-Cluster Solution



Factor-Based Dimensions:
 1 = Harmony With Nature
 2 = Quality of Life
 3 = Stop Growing
 4 = Limits to the Biosphere
 5 = Dominance Over Nature

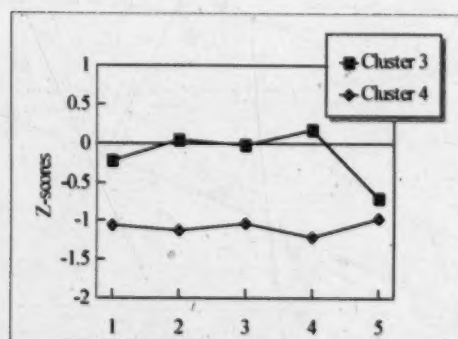
Cluster 1 = 89 cases
 Cluster 2 = 108 cases
 Cluster 3 = 74 cases

Environmental Attitudes: 3-Cluster Solution

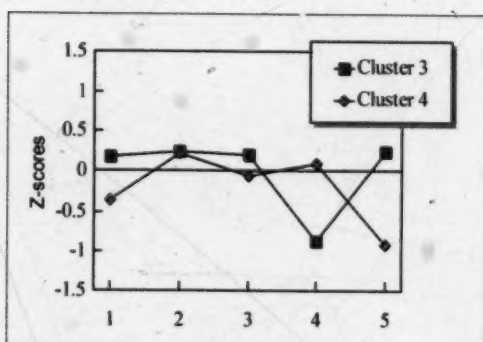
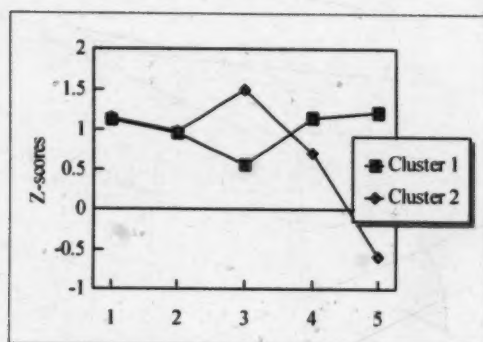


Factor-Based Dimensions:
 1 = Harmony With Nature
 2 = Quality of Life
 3 = Stop Growing
 4 = Limits to the Biosphere
 5 = Dominance Over Nature

Cluster 1 = 62 cases
 Cluster 2 = 17 cases
 Cluster 3 = 105 cases
 Cluster 4 = 87 cases

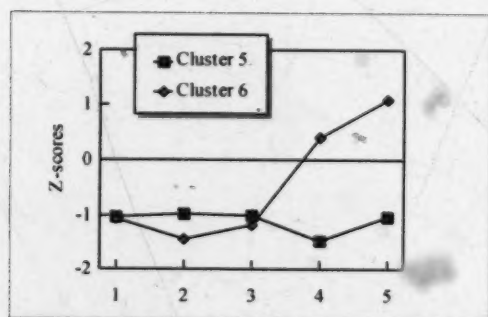


Environmental Attitudes: 4-Cluster Solution

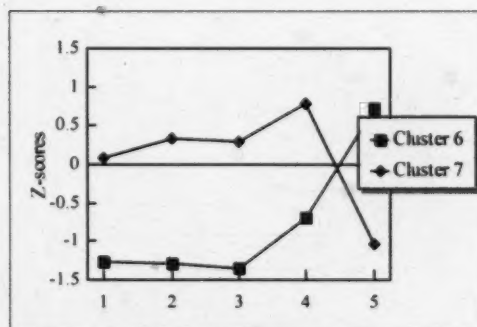
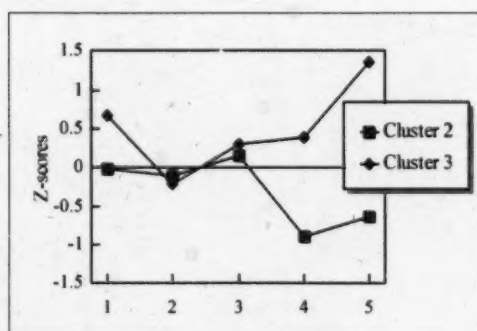
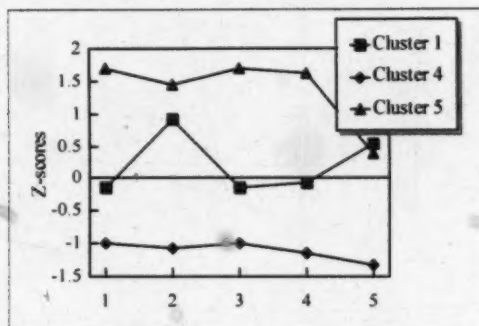


Factor-Based Dimensions:
 1 = Harmony With Nature
 2 = Quality of Life
 3 = Stop Growing
 4 = Limits to the Biosphere
 5 = Dominance Over Nature

Cluster 1 = 22 cases
 Cluster 2 = 31 cases
 Cluster 3 = 65 cases
 Cluster 4 = 76 cases
 Cluster 5 = 70 cases
 Cluster 6 = 7 cases



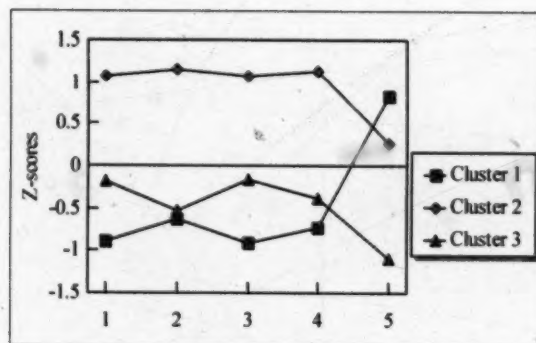
Environmental Attitudes: 6-Cluster Solution



Factor-Based Dimensions:
 1 = Harmony With Nature
 2 = Quality of Life
 3 = Stop Growing
 4 = Limits to the Biosphere
 5 = Dominance Over Nature

Cluster 1 = 36 cases
 Cluster 2 = 62 cases
 Cluster 3 = 33 cases
 Cluster 4 = 52 cases
 Cluster 5 = 13 cases
 Cluster 6 = 8 cases
 Cluster 7 = 67 cases

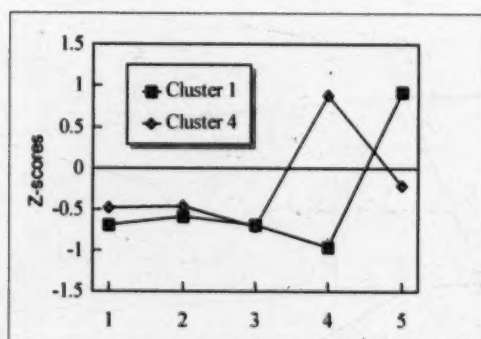
Environmental Attitudes: 7-Cluster Solution



Factor-Based Dimensions:
 1 = Accessibility/Isolation
 2 = Knowledge
 3 = Skills/Social Factors
 4 = Costs
 5 = Time

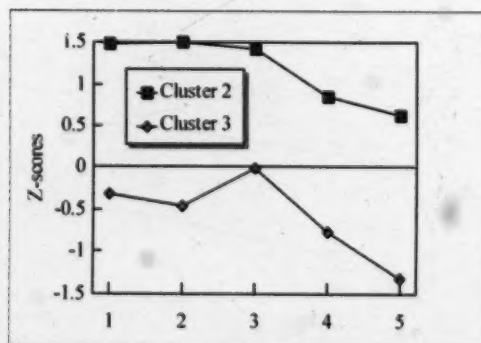
Cluster 1 = 85 cases
 Cluster 2 = 42 cases
 Cluster 3 = 76 cases

Leisure Constraints: 3-Cluster Solution

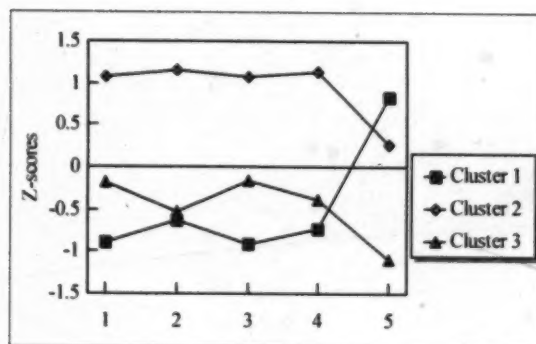


Factor-Based Dimensions:
 1 = Accessibility/Isolation
 2 = Knowledge
 3 = Skills/Social Factors
 4 = Costs
 5 = Time

Cluster 1 = 80 cases
 Cluster 2 = 14 cases
 Cluster 3 = 59 cases
 Cluster 4 = 50 cases



Leisure Constraints: 4-Cluster Solution



Factor-Based Dimensions:

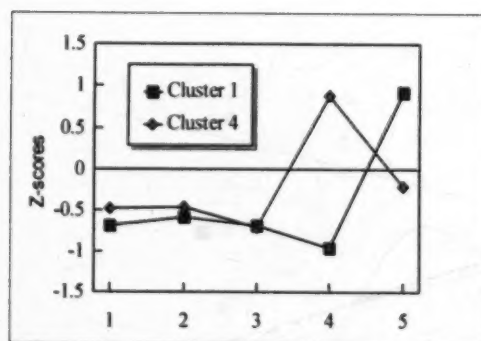
- 1 = Accessibility/Isolation
- 2 = Knowledge
- 3 = Skills/Social Factors
- 4 = Costs
- 5 = Time

Cluster 1 = 85 cases

Cluster 2 = 42 cases

Cluster 3 = 76 cases

Leisure Constraints: 3-Cluster Solution



Factor-Based Dimensions:

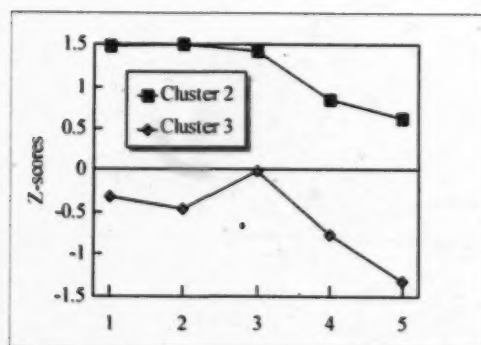
- 1 = Accessibility/Isolation
- 2 = Knowledge
- 3 = Skills/Social Factors
- 4 = Costs
- 5 = Time

Cluster 1 = 80 cases

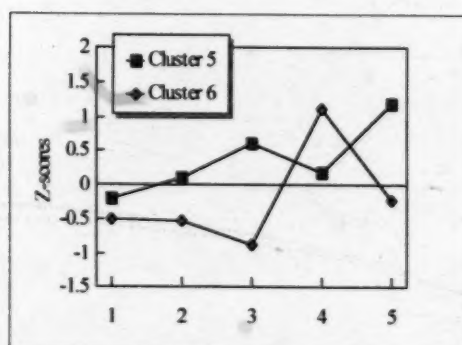
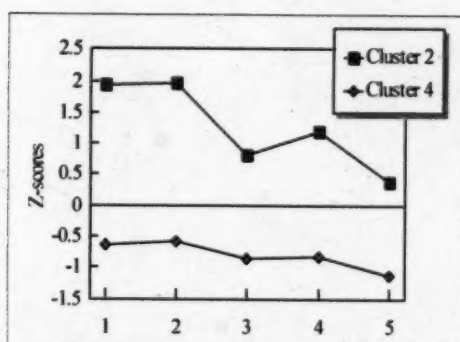
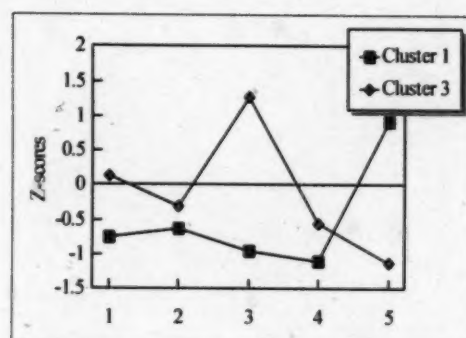
Cluster 2 = 14 cases

Cluster 3 = 59 cases

Cluster 4 = 50 cases



Leisure Constraints: 4-Cluster Solution



Factor-Based Dimensions:

1 = Accessibility/Isolation

2 = Knowledge

3 = Skills/Social Factors

4 = Costs

5 = Time

Cluster 1 = 63 cases

Cluster 2 = 7 cases

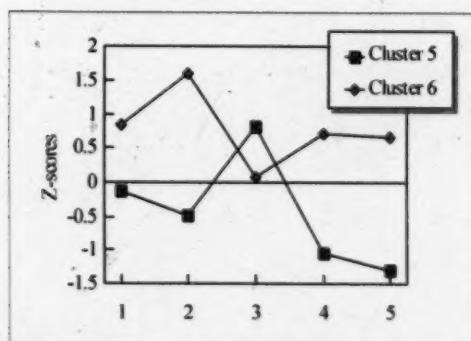
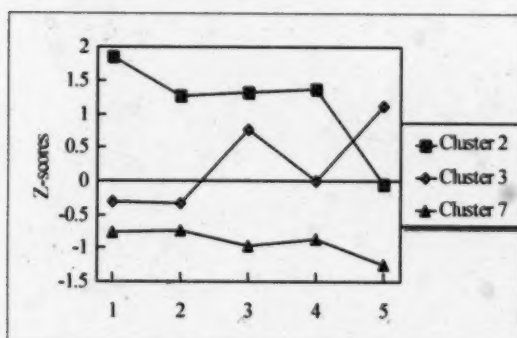
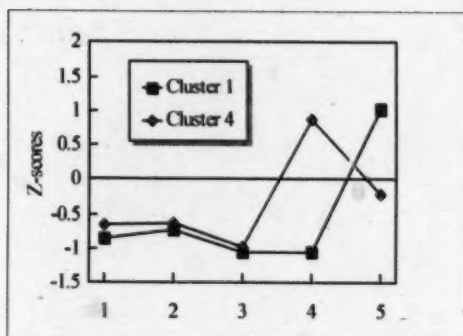
Cluster 3 = 18 cases

Cluster 4 = 52 cases

Cluster 5 = 21 cases

Cluster 6 = 42 cases

Leisure Constraints: 6-Cluster Solution



Factor-Based Dimensions:

- 1 = Accessibility/Isolation
- 2 = Knowledge
- 3 = Skills/Social Factors
- 4 = Costs
- 5 = Time

Cluster 1 = 67 cases

Cluster 2 = 2 cases

Cluster 3 = 15 cases

Cluster 4 = 44 cases

Cluster 5 = 17 cases

Cluster 6 = 6 cases

Cluster 7 = 52 cases

Leisure Constraints: 7-Cluster Solution